# HISTORIC RESOURCES REVIEW OF THE CLARK SAWMILL DAM AND SAWMILL REMOVAL PROJECT, LOWER CABOT, WASHINGTON COUNTY, VERMONT



View northwest of sawmill (left) and dam (background center), from the Sawmill Road bridge

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Report No. 1054

April 3, 2017
HISTORIC RESOURCES REVIEW OF THE CLARK SAWMILL DAM

## AND SAWMILL REMOVAL PROJECT, LOWER CABOT, WASHINGTON COUNTY, VERMONT

### **Submitted to:**

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# iv **PROJECT DESCRIPTION**

The Vermont Department of Public Safety proposes the removal of Clark's Sawmill Dam (VT ID #39.04), on the Winooski River in Lower Cabot, Washington County, Vermont, and the

mostly collapsed Headwater Lumber Company/Clark sawmill situated on the west bank of the river immediately below the dam. The dam and sawmill are located just west of VT Route 215 (Main Street), north of Sawmill Road and south of the confluence of Jug Brook in Lower Cabot (Figures 1-4). The goal of the proposed project is to alleviate flooding events along the Winooski River upstream and downstream of the dam.

This Historic Resources Review was conducted as part of the Section 106 permit requirements of the U.S. Army Corps of Engineers and to satisfy Vermont's 22 V.S.A. 14 regulatory process. The objective of the Historic Resources Review is to identify and document any historic resources on or eligible for listing on the National Register of Historic Places that have the potential to be directly or indirectly affected by project work, and if present, to recommend a determination of effect on the resources by the proposed project. The proposed project was reviewed according to standards set forth in 36 CFR Part 800, the regulations established by the Advisory Council on Historic Preservation to implement Section 106. University of Vermont Consulting Archaeology Program (UVM CAP) Program Historian Kate Kenny and Historic Preservation Specialist Catherine Quinn conducted a field inspection of the project area on January 20, 2017. Current photographs were taken during that site visit and on a supplemental site visit by Kate Kenny on February 23, 2017.

Research conducted for this review included a search of the collections of Wilbur Special Collections of the Bailey Howe Library at the University of Vermont, the Online Research Center of the Vermont Division for Historic Preservation, the online Landscape Change Program of the University of Vermont, records at the Cabot Town Clerk's Office, the Vermont Agency of Natural Resources Dam Safety Office and the Vermont State Archives General Services Center in Middlesex, Vermont. A wide variety of archival records were used in the preparation of this report including State Register files; historic maps, land records, newspapers, aerial imagery, historic photographs, published town histories, census records, state records, vital records, probate records, and family genealogies.

The project area is located within the State Register-listed Lower Cabot Historic District (Figure 5) (VTDHP 1979). The sawmill, still operating as a water powered mill at the time the district was surveyed in 1979, is listed as a contributing structure in that district (#29). Several other properties that overlook the project area also contribute to the district. A historic background of the project area is followed by descriptions of the dam and sawmill, along with descriptions of additional properties that have the potential to be indirectly affected by the Clark's Sawmill Dam and Sawmill Removal project. Recommendations for significance and determinations of effect are also provided.

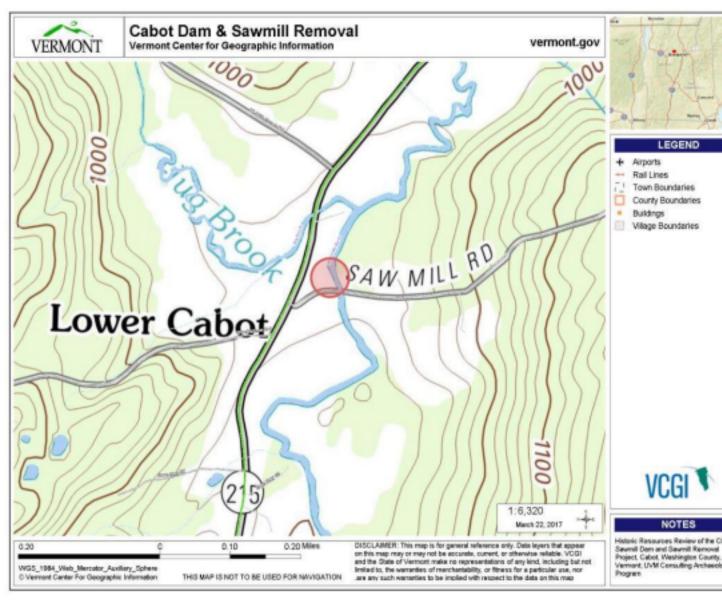


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Figure 3. View northwest of sawmill (left) and dam (background center), from the Sawmill Road bridge, Lower Cabot, Vermont.



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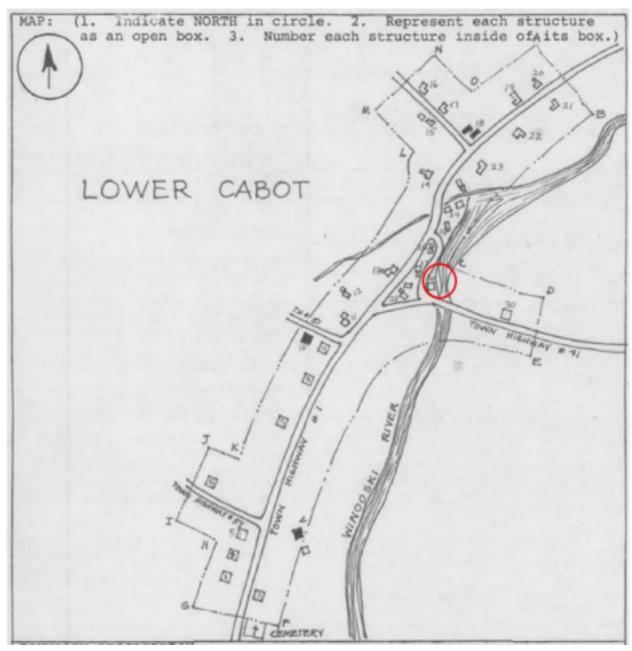


Figure 5. Map of the Lower Cabot Historic District with the project area indicated (VTDHP 1979).

#### HISTORIC BACKGROUND

### General Area History Context

What is today the Town of Cabot is located approximately 1.5 miles north of Lower Cabot, also along the Winooski River. Cabot's location along the Winooski River, which forms in the town by "the union of several small streams," provided Euro-American settlers of the town with several potential mill sites (Thompson 1842: pt III 40-41, 197). Cabot was incorporated in 1866, but was formed much earlier, beginning in 1789, when Thomas Lyford and his son built a grist mill and saw mill along the east bank of the Winooski River (Child 1889). Lyford built the first dwelling in in 1794, and twelve to fifteen years later, John Dana bought an extensive tract of land and built a store, a potash and pearl ash manufactory, and a distillery (Child 1889). A hotel, a cloth-dressing and wool-carding mill, a blacksmith shop, and a small foundry soon followed. Inn-keeping also became a lucrative business due to the town's location mid-way between Montpelier and St. Johnsbury (Child 1889). By the mid-nineteenth century, Cabot was well established (Walling 1858; Beers 1873). By 1888, the population had reached 260 and the town contained "a well-equipped fire department, a well-fenced and shady public park, which contains a fine Barre granite soldiers' monument twenty-five feet high and a good bandstand. It also has two church edifices (Congregational and Methodist), a fine graded school, a grist-mill, a hotel, several stores, sixty-six neat and tidy dwelling houses, and the usual number of shops, mechanics, and artisans" (Child 1889). Sheep raising was once important, but with the decline of the wool market farmers turned to dairying. F.A. Messer built a creamery in Cabot in 1893; in 1919, a group of 94 farmers bought the creamery and established the Cabot Farmers Creamery Co., Inc. (Donaldson:n.d.). The creamery still operates today as Cabot Creamery, a 1,200 farm family dairy cooperative.

Lower Cabot developed very shortly after Cabot in the late 1700s, also based on the waterpower of the Winooski River. A sawmill was constructed along the Winooski River in Lower Cabot by Moses Stone in 1797 (Hemenway 1882:84; 110). Other industries soon followed, and by 1858, Lower Cabot was a well-established village, thriving around small manufacturing into the late 1800s (Walling 1858; Beers 1873). Although manufacturing declined during the 20<sup>th</sup> century, a water-powered sawmill continued to operate in Lower Cabot until about 1997. Detailed histories of the industries within the project area are presented below.

### Moses Stone's Sawmill (No Longer Extant)

The mill seat in Lower Cabot on the Winooski River just below the confluence of Jug Brook was developed by Deacon Moses Stone in the late 1790s. Moses Stone (1765-1842), a native of Barre, Massachusetts, was one of fifteen children of Deacon Matthias Stone (1723-1814) (Bartlett 1926:148-149; *Burlington Free Press* April 4, 1856; *Massachusetts Town and Vital Records 1620-1988*; Vermont Secretary of State, Vermont Vital Records 1720-1908). In 1773, Matthias Stone moved his family, including Moses (then about eight years old), from Massachusetts to Claremont, New Hampshire (Bartlett 1926:148-149; U.S. Census 1790). On

<sup>&</sup>lt;sup>1</sup> Deacon Matthias Stone (1723-1814) was a native of Framingham, Massachusetts, and was a farmer who "also had knowledge of medicine and land surveying" (Bartlett 1926:148-149; Vermont Secretary of State, Vermont Vital

December 18, 1788, Moses Stone married Anna / Ann Huntoon (ca. 1769/1770-1851), a daughter of Revolutionary War officer and blacksmith, Lt. Joseph Huntoon, and his wife, Sarah Davis, in Unity, New Hampshire (Bartlett 1926:150; Kunkle 2008:72; *New Hampshire Marriage Records Index 1637-1947*). Moses and Anna Stone had five children; Susa / Susannah (ca. 1790); Sophia (1793); Fanny (1796); Anna (1802); and Lucinda (1805) (Bartlett 1926:150). The family remained in Claremont into the early 1790s (U.S. Census 1790). Around 1794-1795, when he was about 30 years of age, Moses Stone, along with his father and three of his brothers (Matthias Jr., John, and Joseph), moved approximately 70 miles further north to be "among the first settlers of the town of Cabot" (Bartlett 1926:148-150; *Burlington Free Press* April 4, 1856; Hemenway 1882:84; Metcalf 1892:257; Vermont Secretary of State, Vermont Vital Records 1720-1908).

On February 15, 1796, Moses Stone purchased fifty acres in the southeast corner of Lot #52, including the mill seat, from Eli Todd of Farmington, Connecticut (Figures 6 and 7) (CLR 2:103). Eli Todd (1769-1833) was the son of a wealthy Hartford merchant, a graduate of Yale (Class of 1787), and a noted physician (Todd 1920:60-61; Shepard 1895; *Hartford Courant* September 29, 2014). "After spending some time in the West Indies" Eli Todd, "perused a course of medical study" under Dr. Ebenezer Beardsley (1746-1791), an eminent physician of New Haven, and established his practice in Farmington in September of 1790 (Bronson 1876: 285, 291; Dexter 1907:579; Porter 1841:90). On January 5, 1796, Dr. Eli Todd purchased a significant amount of land in Cabot from Dr. Horace Beardsley, a son of his mentor and a classmate at Yale who had moved to Cabot in October of 1795, for \$1,200 (Bronson 1876: 285, 291; CLR 2:82; Dexter 1907:529; Hemenway 1882:103).

<sup>&</sup>lt;sup>2</sup> Lt. Joseph Huntoon moved to Cabot by 1800 and to Danville by 1810 (Kunkle 2008:24). <sup>3</sup> Susa / Susanna Stone (ca. 1790-1863) married Capt. George Sumner (ca. 1786-1866) on December 6, 1811 (Bartlett 1926:150; Gravestones, Durant Cemetery, Cabot, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908). They had several children including: Susan (ca. 1816); George Smiley (ca. 1818); Clarasa (ca. 1823); Moses L. (ca. 1828); Oramel (ca. 1830); and Melissa (1831-1832) (Bartlett 1926:150; U.S. Census 1850; Vermont Secretary of State, Vermont Vital Records 1720-1908).

<sup>&</sup>lt;sup>4</sup> Fanny Stone (ca. 1800/1801-1882) married John Rawson Putnam (1795-1865), a son of Gideon and Abigail (Holton) Putnam (Bartlett 1926:150; Gravestones, Durant Cemetery, Cabot, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908).

<sup>&</sup>lt;sup>5</sup> Anna Stone (1803-1889) married Thomas Jefferson Cree (1806-1880) on January 1, 1834; he was born in New Boston, New Hampshire (son of Moses and Patty), he is listed in 1850 in Wheelock, Vermont, as a mechanic, but later became a lawyer (Bartlett 1926:150-151; Gravestone, Old Wheelock Village Cemetery, Wheelock, Vermont; U.S. Census 1850, 1860; Vermont Secretary of State, Vermont Vital Records 1720-1908). <sup>6</sup> Mathias Stone Jr. had purchased land in Cabot as early as 1793 (e.g. CLR 1:110).

<sup>&</sup>lt;sup>7</sup> Moses Stone also obtained a quit claim for the same land from Isaac Hill of Cabot on May 22, 1799 (CLR 2:308). Hill may have acquired an interest in the property through a tax sale.

<sup>&</sup>lt;sup>8</sup>In 1824, Dr. Eli Todd became the first superintendent of the Retreat for the Insane in Hartford, Connecticut (now called the Institute of Living) (Todd 1920:60-61; Shepard 1895; *Hartford Courant* September 29, 2014). <sup>9</sup> When

Caledonia County was set off from Orange County (created 1792, organized 1796), "Dr. Gershom [Beardsley] and [Dr.] Horace Beardsley" were "so sanguine in opinion that Cabot would be the shire town, that they proceeded to clear two acres of land in a pasture now owned by S.S. Batchelder, for the county buildings" (Child 1889:203). The county seat was established in Danville. When the Caledonia County seat was moved from Danville to St. Johnsbury in 1856, Cabot left to join Washington County.

7 Cabot, Washington County, Vermont Lotting Plan Milya Mrn. un

Figure 6. Map showing the original town lots of Cabot, Vermont (Base map: USGS 1943 a & b; additional information Gillman n.d.; GrassRoots GIS 2013; Mark Hurd Mapping Corp. 1942).

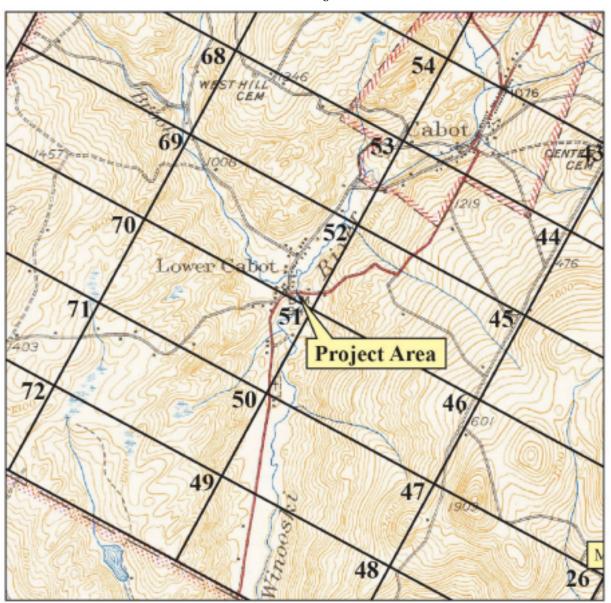


Figure 7. Detail of map showing the original town lots of Cabot, Vermont (Base map: USGS

1943 a & b; additional information Gillman n.d.; GrassRoots GIS 2013; Mark Hurd Mapping Corp. 1942).

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A nineteenth-century town history indicates that Moses Stone, "cleared the ground and built a saw-mill" at Lower Cabot in 1797, and that only "after he got his mill running" did he build his first house (reportedly a log cabin with a large stone chimney) (Hemenway 1882:84; 110). Stone's sawmill is probably the building that appears on mid-1800s maps of Lower Cabot (Figures 8 and 9). Moses Stone's sawmill was most likely a simple structure, possibly open sided. On housing an up-and-down type of saw. In 1885, the *Vermont Watchman* reported:

"[one] anecdote of Deacon Stone is connected with this sawmill, it is said. In the early days of the mill one Sabbath morning there came a severe freshet that threatened to carry away the mill. The deacon looked around and saw that he could do nothing to prevent it, and so leaving it he went to meeting, trusting the result with providence. On his return, in the afternoon, he found the waters subsided and the mill all right. The next day being congratulated by a neighbor on his good fortune, he replied that providence had been good for him, but one thing was certain, he never wanted to go to meeting again and carry his saw mill with him" (*Vermont Watchman* September 9, 1885).

On February 14, 1835, when he was about 70 years of age, Moses Stone sold the sawmill and the mill pond property, to Lyman Stone <sup>11</sup> (ref in CLR 6:427). Lyman Stone sold the same property to Horace Haines, a son-in-law of Moses Stone, on March 31, 1836 (CLR 6:427). Horace Haines (1803-1871) married Lucinda Stone (1805-1879), the youngest child of Deacon Moses and Anna Stone, in 1825 (Bartlett 1926:151; Haines and Haines 1902:194-196). Horace Haines' father, David Haines (1775-1856), had moved to Cabot in ca. 1797, "carved out a good farm," married Anna Osgood (1786-1866) in 1801 and had two children<sup>12</sup> (Bartlett 1926:151; Gravestones, Durant Cemetery, Cabot, Vermont; Haines and Haines 1902:56-7, 112, 195; Hemenway 1882:84; Vermont Secretary of State, Vermont Vital Records 1720-1908). Horace and Lucinda (Stone) Haines had nine children including: Judith (1827); Edward G. (1829); Ira F. (1830); Leander (1833); Fanny (1836); William J. (1838); Louisa/Louise (1840); Moses (1842); and Lelia (1844) (Bartlett 1926:151; Haines and Haines 1902:194-196). In Horace Haines' estate inventory, the sawmill was appraised at \$250 (*Washington County Probate Court Records* 1872). On December 20, 1872, the sawmill was sold from the estate of Horace Haines to his son, Ira F. Haines, for \$250 (CLR 15:149). The mill apparently fell out of use sometime after 1872, as Ira Haines

removed the sawmill from the site in 1885 (Vermont Watchman September 9, 1885).

<sup>&</sup>lt;sup>10</sup> For example, in one deed an angle was described as "running on the ledge towards the south end of the ridge pole of the sawmill" (CLR 6:427). Other deeds indicate that the sawmill was located next to or very close to the dam (e.g. CLR 6:245).

<sup>&</sup>lt;sup>11</sup> This was probably Lyman Stone (ca. 1807-1856) (Gravestone, Durant Cemetery, Cabot, Vermont). <sup>12</sup> His other son was William Haines (1807-1885), who took over his farm (Haines and Haines 1902:112).

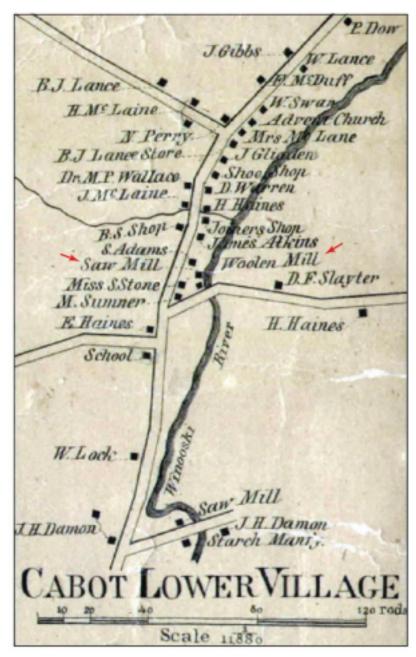


Figure 8. Map of Cabot Lower Village from H. F. Walling's *Map of Washington County, Vermont* (1858), with Moses Stone's sawmill and the Haines woolen mill indicated.

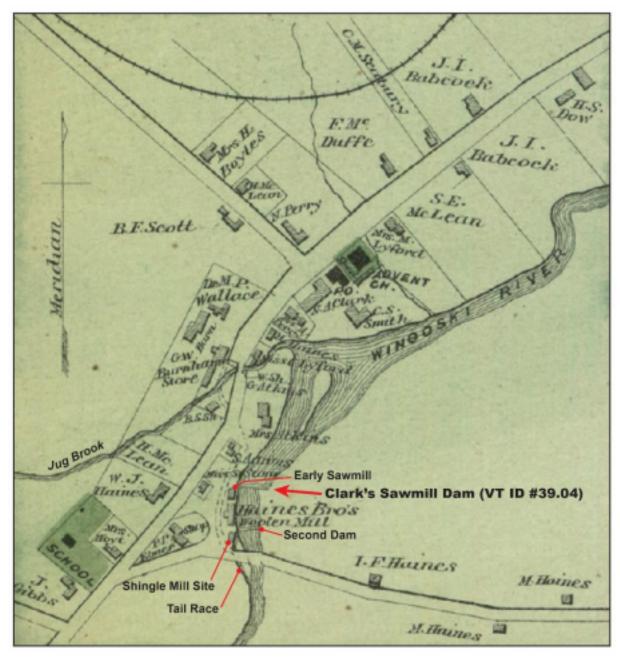


Figure 9. Map of Lower Cabot from F. W. Beers' County Atlas of Washington, Vermont (1873),

with project area buildings and structures indicated; note "early sawmill" is Moses Stone's mill.

# 12 Tannery (No Longer Extant)

On September 28, 1807, Moses Stone sold an 18-acre parcel on the east side of the river and mill pond<sup>13</sup> to Eli S. Cowles (1787-1830) of Claremont, New Hampshire, for \$100 (CLR 4:53; Cowles 1929:229; Gravestone, Broad Street Cemetery, Claremont, New Hampshire). This sale included the "privilege of taking water out of [Moses Stone's] dam to supply a tan yard and carry a bark stone the months of April, May, and June" (CLR 4:53). The deed required the grantee to build and maintain a separate bulkhead (CLR 4:53). In the deed Moses Stone reserved an access road to and from the dam as well as "30 ft of ground to erect a blacksmith shop on, below said dam" (CLR 4:53). On January 31, 1810, Eli Cowles transferred this property back to Moses Stone (CLR 4:214). By this time, a bark mill had been constructed at the eastern end of the dam (CLR 4:228). Moses Stone immediately transferred the tannery property and its water privilege to James Webber, of Hardwick, Vermont, for \$500<sup>14</sup> (CLR 4:228). On the same day, Webber obtained a mortgage on the property from Eli Cowles for \$500 (CLR 4:174).

James Webber moved to Cabot where he was recorded in the 1810 federal census with a household of seven (U.S. Census 1810). On December 14, 1814, Eli Cowles assigned the mortgage that he held on the property to his brothers, Lemon / Leman Cowles (1791-1872) and Nathaniel Cowles (1784-1865), both farmers residing in Claremont (CLR 4:348; Cowles 1929:484, 487). It appears that Webber defaulted on his payments. Webber is not recorded in the 1820 census in Cabot (U.S. Census 1820). On April 18, 1822, Lemon and Nathaniel Cowles sold the property to their father, Timothy Cowles (CLR 5:148). Timothy Cowles (1752/4-1832) was "a farmer and a weaver by trade," he had been born in Farmington, Connecticut, moved to Claremont, New Hampshire, ca. 1779, married Sarah Stilson in 1783, and had eight children between 1784 and 1800 (Cowles 1929:226, 229; Gravestone, Broad Street Cemetery, Claremont, New Hampshire).

On April 8, 1825, Timothy Cowles sold the tannery lot <sup>15</sup> to Joseph Fisher of Cabot for \$290 (CLR 5:149). Joseph Fisher (1766/7-1853) had been born in Massachusetts, but as a young man had moved to Claremont, New Hampshire, where he married Sarah Osgood (ca. 1769-1839) (Fisher 1898:182-183; Hemenway 1882:110). They moved to Cabot and had had seven children: four sons and three daughters (Fisher 1898:182-183; Hemenway 1882:110). On March 20, 1830, Joseph Fisher sold the tannery to his son, William Fisher (1802-1854), for \$500 (CLR 5:427; Fisher 1898:407). It appears that the Fisher family redeveloped the tannery site, possibly after a period of being idle (possibly 5-10 years) under absentee owners. The Fisher family history states that in ca. 1827, William Fisher "put up a tannery at Lower Cabot, on the river opposite the

factory (Haines' Mills) . . . , which he ran until . . . he moved to Albion, New York'' (Fisher 1898:407; Hemenway 1882:84).

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In May of 1833, a severe flood affected the region. One account recalled: "at that early date there being but few roads in town the damage was not so large but bridges were swept away and buildings overturned and ruined, among them being the carding works at Lower Cabot, located where Ford's shop now stands 16 also the tannery of William Fisher then opposite from the Haines Factory" (Vermont Watchman July 28, 1897). William Fisher appears to have made the necessary repairs after the flood and on August 21, 1835, he sold the tannery property to Seth Cook of Danville for \$800 (CLR 6:376). Seth Cook (1789-1838) was a saddler and harness maker who moved from Plainfield to Danville ca. 1824 after his second marriage (Gravestone, Plainfield, Village Cemetery, Plainfield, Vermont; North Star November 23, 1824; Vermont Secretary of State, Vermont Vital Records 1720-1908). He had first married Betsey Watson on December 2, 1810, in Barre; she died in Plainfield on July 19, 1821 (Gravestone, Plainfield, Village Cemetery, Plainfield, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908). Seth Cook then married Cynthia Watson (ca. 1805-1855) on March 3, 1824 (Gravestones, Danville Green Cemetery, Danville, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908). Seth Cook had at least nine children including: Caroline (1811-?); Betsey (1813-1849); Quinton (1815-1896); Seth (ca. 1817/1818-1826); George (1819-1906); Royal (1824-1863); Phineas (ca. 1827-1886); Albert (1831-1875); and Ellen (Gravestones, Danville Green Cemetery, Danville, Vermont; Massachusetts Death Records 1841-1915; Vermont Secretary of State, Vermont Vital Records 1720-1908; Vermont Wills and Probate Records 1749-1999:1838). It appears that in 1835 Seth Cook entrusted his recently purchased Cabot tannery property to his then twenty-year-old son, Quinton Cook, who was also a saddler and harness maker (U.S. Census 1850). Other records indicate that Quinton Cook moved to Cabot prior to 1840 and operated the tannery at this site <sup>17</sup> (Hemenway 1882:84; U.S. Census 1840, 1850; Vermont Secretary of State, Vermont Vital Records 1720-1908).

Seth Cook died in Danville on May 25, 1838, at 49 years of age (Vermont Secretary of State, Vermont Vital Records 1720-1908). His property in Cabot was first willed to Quinton Cook, but only on the condition that he paid "to my said executor all such sums of money as the said Quinton is owing me on notes or otherwise" (*Vermont Wills and Probate Records 1749-1999:* 1838). Quinton Cook apparently did not or could not pay. <sup>18</sup> On November 24, 1840, Ebenezer Eastman, the guardian of the minor children of Seth Cook (Royal, Phineas, Albert, and Ellen), sold the tannery property to George W. Cree, <sup>19</sup> who continued its operation (CLR 7:390; Hemenway 1882:84). George W. Cree (1816-1859) was married to Susan M. Sumner (1816-

<sup>&</sup>lt;sup>13</sup> This parcel was also defined south by Sawmill Road, east by the original lot line, and north by land of Jeremiah Babcock on Lot #52.

<sup>&</sup>lt;sup>14</sup> At this time, 1810, Moses Stone altered the boundaries of the property making it about 15-acres and keeping a sliver of land situated south of the dam and between the river and a straight line drawn from the northwest corner of the bark mill S14E to the road (CLR 4:228). This change, however, is not reflected in deeds concerning this property after the mid-1830s (e.g. CLR 7:390, 7:448). It is possible there is a deed missing from this chain of title, for example, maybe the Fishers got proper title Stone.

<sup>&</sup>lt;sup>15</sup> It appears that Timothy Cowles also sold Fisher some land on the south side of the road, which he bought from Moses Stone on February 8, 1810, at about this time (CLR 4:163).

1877), a daughter of George and Susa/Susanna (Stone) Sumner, and a granddaughter of Deacon Moses Stone (Gravestones, Durant Cemetery, Cabot, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908).

<sup>16</sup> This shop was located well to the south of the current project area, but also on the Winooski River. <sup>17</sup> On August 21, 1835, Quinton Cook mortgaged this property to William Fisher (CLR 6:341). <sup>18</sup> Quinton Cook remained in Cabot into the 1860s working as a master harness maker, with his wife, Abigail Coburn (b. ca. 1817) and daughter, Martha (b. ca. 1841) (U.S. Census 1840, 1850; Vermont Secretary of State, Vermont Vital Records 1720-1908). He subsequently moved to St. Johnsbury, where he was a grocer for several years (into the 1880s), and died in Barre in 1896 (U.S. Census 1860, 1870, 1880; Vermont Secretary of State, Vermont Vital Records 1720-1908).

<sup>19</sup> George W. Cree's older brother, Thomas J. Cree (ca. 1806-1880), was married to Anna Stone, a daughter of Deacon Moses Stone (Old Wheelock Village Cemetery, Wheelock, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908).

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On April 12, 1841, George Cree sold the tannery property and its water privilege along with two other small properties<sup>20</sup> to his father, Moses Cree (1773-1860), then a resident of Wheelock,<sup>21</sup> for \$1,000 (CLR 7:448; Gravestones, Old Wheelock Village Cemetery, Wheelock, Vermont; *Massachusetts Town and Vital Records 1620-1988*; U.S. Census 1840; Vermont Secretary of State, Vermont Vital Records 1720-1908). Vermont business directories indicate that Moses Cree continued work at the tannery (e.g. Walton 1846). On May 25, 1846, Moses Cree sold a part of the tannery property and the water rights to Horace Haines for \$300 (CLR 8:391). This smaller lot was described as beginning at the northeast corner of the bridge, then going east on the road 42 ft to "a brick marked HC;" then north to the dam ("at a notch in the ledge"); then west on the dam to the Winooski River; then downstream to the beginning; along with buildings on the property<sup>22</sup> (CLR 8:391). The tannery is not included on the historic map of Lower Cabot published in 1858 (see Figure 8). In Horace Haines' 1872 estate inventory, the piece of land on the east side of the Winooski River was valued at \$25 (*Washington County Probate Court Records* 1872). This land was sold by his administrator to his son, Ira Haines, on December 20, 1872, for \$25 (CLR 15:148).

## Blacksmith Shop (No Longer Extant)

In 1807, Moses Stone reserved "30 ft" of land on the east side of the river and south of the dam for a blacksmith shop from the tannery property (CLR 4:53). The location of the lot suggests that the shop may have been equipped with a water-powered trip hammer. It is not clear exactly when the blacksmith shop was built, but it was mentioned in a deed for the sawmill property in 1836 (CLR 6:427). It is not, however, on the Walling map of 1858 (see Figure 8).

# Distillery / Wool Factory / Box Factory/Headwater Lumber Company/Sawmill (Current Sawmill Remains)

According to an early town historian, about the time of the War of 1812, Deacon Moses Stone "put up" a distillery just south of his sawmill "on the site where the Haines Brothers' woolen factory is now situated" (*Vermont Watchman* February 3, 1875). However, on February 25,

1825, Moses Stone sold the piece of land south of his sawmill, to his son-in-law, Horace Haines (1803-1871), and his business partner, William Ensign (1801-1866), <sup>23</sup> for \$200 (CLR 5:139; Gravestone, Black Cemetery, Daviess County, Missouri; Vermont Secretary of State, Vermont Vital Records 1720-1908). This transaction also included a privilege of water "sufficient to support a fulling mill, <sup>24</sup> a carding machine, and a factory for making wool" (meaning at least ½ of the water from the dam), as well as the right to a road one rod wide

<sup>20</sup> This appears to have included the land south or road owned by Timothy Cowles.

<sup>21</sup> Moses Cree, a native of Massachusetts was married to Patty (Dennis) Cree (1783-1880) (Gravestones, Old Wheelock Village Cemetery, Wheelock, Vermont; *Massachusetts Town and Vital Records 1620-1988*; Vermont Secretary of State, Vermont Vital Records 1720-1908). Federal census records indicate that Moses Cree lived in Marshfield ca. 1830, in Wheelock ca. 1840, and in Montpelier ca. 1860 (U.S. Census 1830, 1840, 1860). <sup>22</sup> This transaction also included the "old shoe shop" opposite McLean & Wallace's store (CLR 8:391). <sup>23</sup> William J. Ensign (1801-1866) married Leona Smith (1807-1884) in Cabot on October 23, 1827 (Gravestones, Black Cemetery, Daviess County, Missouri; Vermont Secretary of State, Vermont Vital Records 1720-1908). <sup>24</sup> "The production of higher quality woolen cloth required 'fulling" (felting process) of the cloth to shrink and thicken it by using large hammers, called stocks" (Rivard 2002:26).

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running along the western side of their property and the privilege of setting their tenter bars<sup>25</sup> west of that road "by the side of the ledge" (CLR 5:139). Additional terms included in the deed made Haines and Ensign responsible for half of the cost of keeping the dam in repair (CLR 5:139). The lot of land transferred started 8 ft south of the southwest corner of the sawmill, ran south 132 ft, then ran east to the middle of the river, then north to the dam, then east to the side of sawmill, then south to point 8 ft south of the southeast corner of the sawmill, then west to the point of beginning to begin (also transferred was a four square rod piece of land on the south side of the road on the west side of the river) (CLR 5:139).

On March 25, 1825, Haines and Ensign sold a one-third interest in the factory to Andrew Edgerton, a local farmer, for \$67<sup>26</sup> (CLR 5:157; U.S. Census 1820, 1830). On June 29, 1825, Andrew Edgerton sold three properties, including his third interest in the Haines and Ensign factory, to Thomas Caldwell (CLR 5:161). On December 8, 1827, Thomas Caldwell sold the third interest in the woolen mill to John R. Putnam, then of Albany, Vermont (CLR 5:273). John R. Putnam (1795-1865), son of Gideon and Abigail (Holten) Putnam of Charlton, Massachusetts, married Fanny Stone (1800-1882), a daughter of Deacon Moses and Ann (Huntoon) Stone of Cabot (Gravestones, Durant Cemetery, Cabot, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908). On April 24, 1834, William Ensign sold his interest in the mill, its water rights and "all the machinery for cloth dressing and wool carding" to his partners, Putnam and Haines for \$200 (CLR 6:212).

On October 2, 1834, John Putnam and Horace Haines sold the woolen mill with all of its machinery and tools to Alden Webster (ca. 1812-1883), son of Stephen (ca. 1773-1823) and Mary (?-1852) Webster, of Danville, for \$900 (CLR 6:245; Gravestones, Danville Green Cemetery, Danville, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908). According to a Cabot town history; Alden Webster set about "adding machinery" including "spinning jennys and hand looms" to the mill and "commenced the manufacture of full cloth"

(Hemenway 1882:84). Periods of improvements to the mill may (or may not) date to large mortgages taken out on the property by Alden Webster. For example, on May 3, 1836, he mortgaged the mill property and his house to Mary Webster<sup>28</sup> for \$900 (CLR 6:430, also see quit claim CLR 7:125). On June 9, 1840, he mortgaged the factory to Louisa, Nancy, and John Webster for \$600 (CLR 7:372).

Alden Webster married Harriet L. Wilson (ca. 1816-1883), daughter of Hugh and Mary (Coburn) Wilson of Cabot, and had two sons Shadrack (ca. 1838-1840) and Meshack (ca. 1841-1843) (Gravestones, Durant Cemetery, Cabot, Vermont; Vermont Secretary of State, Vermont Vital Records 1720-1908). Alden Webster is listed in Cabot in the 1840 census with a household

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of four; one male 20-29 years old and three females 20-29 years old, with two "persons employed in manufacture and trade" (U.S. Census 1840). In 1845, a volume entitled *Statistics of the Woolen Manufactories in the United States*, indicated that Alden Webster of Cabot manufactured "kerseymeres, Sheep Grays and sattinets" and had "1 set condensing cards" (Anonymous 1845:30). By definition, kerseymere is a heavily fulled woolen cloth constructed in twill weave and finished with a fine nap; Sheep Grays is a basic fabric in a natural color (mix of white and black wool), used for every-day clothing; and sattinet is mixed wool and cotton cloth (having cotton warps) (Rivard 2002:86). This indicates that Alden Webster's mill, like many American woolen mills, found success meeting the demand for simpler / lower-end woolen goods (e.g. flannel, cassimere, and satinet) rather than competing against fine British imports (e.g. broadcloth) (Rivard 2002:79, 83).

On August 23, 1849, Alden Webster sold the woolen mill back to Horace Haines for \$1,200<sup>30</sup> (Figure 10) (CLR 9:217). This transaction did not include a small piece of land along the road that Webster sold previously. Horace Haines continued the wool cloth business in partnership with his eldest son, Edward G. Haines (Hemenway 1882:84). The 1850 census listed Edward G. Haines, a 21-year-old 'clothier,' as living in his father's household in Cabot<sup>31</sup> (U.S. Census 1850). On April 18, 1851, Horace Haines sold the woolen mill's land and water privilege as well as a half interest in the building and its machinery to Edward Haines for \$450 (excepting the small piece of land on the road that Alden Webster sold to Haines and Sampson for a shingle and jointer mill, see "Shingle Mill" below) (CLR 10:484).

Hemenway's 19<sup>th</sup>-century town history states that Horace and Edward Haines built a "new factory in 1849, with water-power looms and modern machinery"; a photograph of the

<sup>&</sup>lt;sup>25</sup> "Tenter bars, on which the fulled cloth is stretched and dried, are placed either in a long open shed, through which the air has free circulation, or as frequently in the open air. They are composed of two tiers of scantling, about four inches square, placed upon posts six feet high above the ground" (Craik 1870:396). The top bar was fixed and the lower one was adjustable. Tenter hooks are L-shaped fasteners having one end pointed so it could be driven into the tenter bars, and were typically made "of galvanized or tinned iron to prevent rust, which would stain the cloth" (Craik 1870:396).

<sup>&</sup>lt;sup>26</sup> Andrew Edgerton married Mary Atkins on November 30, 1828 (Vermont Secretary of State, Vermont Vital Records 1720-1908).

<sup>&</sup>lt;sup>27</sup> These machines may have been a bit outdated technology at this time.

<sup>&</sup>lt;sup>28</sup> This may have been his widowed mother.

building taken ca. 1910 appears to show the date "1854" on a sign located just above the top window of the central projection, so the exact date of construction is not certain, but known to be ca. 1850 (Hemenway 1882:84) (Figures 11 – 14). The Walling map of 1858 shows the woolen mill, along with the early (Moses Stone) sawmill located at this site (see Figure 8). The mill in the ca. 1910 photograph is likely the Haines Woolen Mill after it was converted into a wood working / box factory in the early 20<sup>th</sup> century, but before the addition of concrete to the dam in 1924. The roof of a second structure that appears to the right (behind the tree) of the mill building may be a sawmill said to have been built ca. 1918 by H.L. Clark (Trombley 1977:24).

<sup>&</sup>lt;sup>31</sup> The 1850 census lists another probable relative, Russell Haines (33), also a clothier, with his wife, Alvira (26), living in Horace Haines' household in Cabot (U.S. Census 1850). Russell Haines may have gone west.



Figure 10. Horace Haines (carpenterpitkin.com/CabotWebPictures.html).

<sup>&</sup>lt;sup>29</sup> A "set" of carding machines is three machines, each refining the wool one step, towards change in step to be ready for spinning (usually with a spinning jack) (Rivard 2002:91, 93). Carding machines with condensers, which were introduced ca. 1826, "could . . . produce endless rolags" (Rivard 2002:90).

<sup>&</sup>lt;sup>30</sup> After selling the woolen mill in Cabot, Alden Webster moved to Royalston, Massachusetts, to farm; then to Worcester, Massachusetts, by 1855 where he operated a shoe store, he was then a hotel keeper in Indiana ca. 1860, before returning to Worcester by 1865 to run a fruit store, he moved to Danville, Vermont, between 1870 and 1880, where he died on August 2, 1883 and his occupation recorded as "clothier" (Gravestone, Danville Green Cemetery, Danville, Vermont; Massachusetts State Census 1855, 1865; U.S. Census 1850, 1860, 1870, 1880; Vermont Secretary of State, Vermont Vital Records 1720-1908).



Figure 11. View east ca. 1910 - 1920 of mill at Lower Cabot, VT (Courtesy Penobscot Marine Museum, Eastern Collection, LB2007.1.10231). Note: dam at left behind woodpile (with no visible concrete and no water flowing over the spillway), electric lights and wiring on the building, type of vehicles in the image, and roof of structure to the right of the mill.



Figure 12. Close-up view ca. 1910 – 1920 of sign with date (1854?) on mill at Lower Cabot, VT, (Courtesy Penobscot Marine Museum, Eastern Collection, LB2007.1.10231).



Figure 13. View northwest of the Haines Mill and dam in Lower Cabot (Cabot Historical Society). Note that the dam sluice gate is open (lower left portion of dam).



Figure 14. View north of the Haines Mill and dam in Lower Cabot (Cabot Historical Society).

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The Beers map of 1873 shows the mill as having the footprint seen in later photographs of the building (see Figures 9 and 11). The major rebuilding/renovation of the Haines woolen mill may have been related to the installation of new machinery and/or to new developments in the transmission of water power. Specifically, the earlier "waterwheels were frequently inefficient. Consequently, the generated horse power was often barely adequate" (Rivard 2002:57). Beginning in ca. 1826, lighter leather belting began to replace metal gearing (Rivard 2002:58). This was followed by the development of improved iron water turbines in the 1840s and "by 1850, a new strategy for waterpower was being used in all new mills and retrofitted to most older ones. The design featured a high efficiency, fast moving turbine to run a relatively light network of shafts and pulleys connected to one another and to the machinery itself by leather belting" (Rivard 2002:58).

The 1860 manufacturing census lists the "H. & E.G. Haines" woolen mill as having a capital investment of \$6,000. The factory reported using 7,000 pounds of wool (valued at \$2450); 500 pounds of cotton (valued at \$70); 100 gallons of oil (valued at \$100); 20 pounds of dye stuff (valued at \$70); and "other articles" (including fuel, valued at \$135) a year. At the time, the factory employed four men (at \$75 per month) and three women (at \$43 per month). The annual finished product included 5,500 yards of cassimeres (valued at \$4,025); 2,750 yards of satinets & tweed (valued at \$1,185); and "other work" (valued at \$250). In 1860, Horace Haines (57) was listed as a 'woolen manufacturer' with real estate valued at \$7,800 and personal estate valued at \$2,000 (U.S. Census 1860). Edward Haines was listed in the same census as a 31-year-old 'woolen manufacturer,' who owned real estate valued at \$3,700 and a personal estate

valued at \$1,000 (U.S. Census 1860). This census also shows that some of the workers also lived with the Haines families including: Mahala Beedle (29), a carder; <sup>32</sup> Adeline Smith (23), a weaver; and Lizzie Mason (22), a weaver (U.S. Census 1860).

Edward G. Haines died of consumption on January 26, 1867, at thirty-seven years of age, leaving a widow, Emily G. (Damon) Haines (who he had married in 1854), and three young daughters Alice (1857-1875); Minnie (1864-1884); and twin Mattie (1864-1889)<sup>33</sup> (Figure 15) (Haines and Haines 1902:195; Vermont Secretary of State, Vermont Vital Records 1720-1908). His estate included, among other properties, a half interest in the woolen mill (valued at \$1,250); a half interest in the machinery in the mill (valued at \$1,330); a share of the factory's product on hand including: 1,152 yards of pant cloth (valued at \$979.41); 167 yards of checked flannel<sup>34</sup> (valued at \$83.50); and 99 yards of white flannel (valued at \$39.60); as well as raw materials including: 127 pounds wool (valued at \$63.50); 397 pounds wool (valued at \$178.65); 293 pounds black wool (valued at \$234.40); and 78<sup>3</sup>/<sub>4</sub> pounds cleaned wool (valued at \$70.87) (*Washington County Probate Records* 1867). In February of 1867, the administrator of Edward Haines' estate, J. H. Damon, placed an advertisement in the newspapers for the sale of the half interest in the: "woolen factory at Cabot Lower village together with the machinery and all the fixtures belonging to the said Haines; also one half of the saw mill and 1 two story House in Cabot, belonging to said Haines, together with the house he lived in, it being one of the best

<sup>&</sup>lt;sup>34</sup> Flannel "required little finishing" and was "used for both clothing and blankets" (Rivard 2002:7).

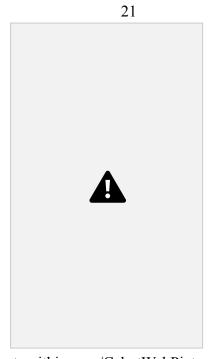


Figure 15. Edward Haines (carpenterpitkin.com/CabotWebPictures.html).

<sup>&</sup>lt;sup>32</sup> Mahala Beedle (1831-1908) of Cabot married Hezekiah Boyles on April 8, 1863, but later divorced (Gravestone, New Discovery Cemetery, Marshfield, Vermont; U.S. Census 1900; Vermont Secretary of State, Vermont Vital Records 1720-1908).

<sup>&</sup>lt;sup>33</sup> Two other infants died young in 1855 and 1862.

houses in town, nearly new, two stories and well-located . . . The factory is nearly new, good water power and is doing a thriving business" (*Vermont Watchman* February 27, 1867).

On April 15, 1867, Edward Haines' estate sold the land on which the mill stood and a half interest in the mill and its machinery to his younger brother, Ira F. Haines (Figure 16) (CLR 13:415). Ira F. Haines (1830-1913) had grown up with the mill. He remained in his father's household probably up until about the time he married Emily A. Hoit on April 3, 1861 (Haines and Haines 1902:195). In the 1850 census, he is listed as a "miller" and in the 1860 census he is listed as a "spinner in factory" (U.S. Census 1850, 1860). Ira F. Haines and his wife had three children: Julia (1862-1891); Charles H. (1864-1946); and Mary (1870-1897) (Haines and Haines 1902:195). They too grew up around the mill. In June of 1876 it was reported that: "A little four-years-old daughter of Mr. Ira F. Haines of Lower Cabot with her little brother, climbed into the belfry of her father's woolen factory the 10<sup>th</sup> inst., and nearly reaching the floor of the belfry, she fell and struck the back of her head. At first it was thought she would not recover, but it is now expected she will fully recover from the injury" (*Caledonian* June 23, 1876).

The 1870 federal manufacturing census lists the Haines' mill (aka. the "Washington County Woolen Mills") as having a capital investment \$8,000. It relied on waterpower (16 hp) to operate 200 spindles, four looms, five carders, and two pickers. The factory employed four men and four women; paying out \$1,300 in wages annually for the equivalent of nine months of full time operation. The factory utilized 2,000 pounds of wool (valued at \$3,800) and produced 1,200 yards of flannel (valued at \$600); 500 yards of doeskins (valued at \$460), and 5,500 yards of cassimere (valued at \$4,950).

<sup>&</sup>lt;sup>36</sup> A medium weight, but hard wearing wool fabric.

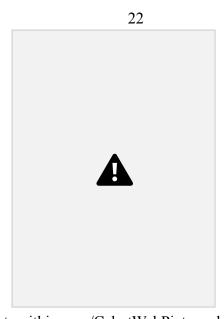


Figure 16. Ira F. Haines (carpenterpitkin.com/CabotWebPictures.html).

Horace Haines died on October 1, 1871, at sixty-eight years of age (Vermont Secretary of

<sup>&</sup>lt;sup>35</sup> This may suggests that some grist milling may have been done at this site?

State, Vermont Vital Records 1720-1908). The inventory of his estate included his homestead/farm (158 aces); a sugar lot (70 acres); a "piece east of river near factory" (valued at \$25); the sawmill (valued at \$250); a half interest in the woolen mill (valued at \$1,700); and a half interest in the machinery in the mill: including one picker (valued at \$5); two breakers (valued at \$35); two [spinning] jacks<sup>37</sup> (valued at \$87.50); three looms (valued at \$20); custom cards (valued at \$15); finishing machinery (valued at \$10); a warper (valued at \$1); a platform scale (valued at \$4); and a counter scale (valued at \$2.25). On December 20, 1872, Horace Haines' half interest in the woolen factory was transferred to another one of his sons, William J. Haines (Figure 17) (CLR 15:150). However, William J. Haines died on January 25, 1875, of consumption at thirty-seven years of age (Haines and Haines 1902:195).

The inventory for the estate of William J. Haines included his house and land (valued at \$2,200); a half interest in the woolen factory (valued at \$1,700); a half interest in the equipment in the mill including: finishers cards (valued at \$250); a fancy loom<sup>38</sup> (valued at \$100); two breakers (valued at \$35); two jacks (valued at \$87.50); three looms (valued at \$20); custom cards (valued at \$15); cloth finishers (valued at \$10); a warper (valued at \$1); two pickers (valued at \$7); a share of the raw materials on hand including oil, wood, soap, and grease (valued at \$125); a total of 1,354 pounds of wool of various quality (valued at \$208.15); "wool of Whittier" (valued at \$20.77); 189½ pounds of yarn [waste?] (valued at \$17.06); and 40 pounds yarn on bobbins & rolls (valued at \$20); as well as a share of the finished product on hand including: 1534¾ yards of gray cassimere (valued at \$652.25); 1,342 yards of unfinished gray cassimere

<sup>&</sup>lt;sup>38</sup> Probably meaning a fancy cassimere loom, which could weave "subtle patterns on the cloth's surface" (Rivard 2002:92).



Figure 17. William J. Haines (carpenterpitkin.com/CabotWebPictures.html).

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<sup>&</sup>lt;sup>37</sup> The spinning jenny was improved upon by the spinning jack in the 1820s; these in turn started becoming obsolete ca. 1880 (Rivard 2002:92).

(valued at \$539.85); 200 yards of light cassimere (valued at \$75); 433¾ yards of checkered flannel (valued at \$138.85); 22.5 yards of white flannel (valued at \$3.38); 124 yards of 'all wool tweed' (valued at \$37.20); 142 yards of satinette (valued at \$42.60); 205¾ yards of 'water proof' (valued at \$41.15); and a quantity of fancy cassimere (valued at \$50) (*Washington County Probate Records* 1875).

On July 17, 1875, William J. Haines' half interest in the woolen mill was sold to his brother, Ira Haines, for \$2,800 (CLR 15:392). Ira Hines was now the sole owner of the mill and would continue to operate it for about two more decades. In 1885, it was reported that: "Ira F. Haines proprietor of the Washington County Woolen Mill at Lower Cabot is doing quite a job in repairing the dam and in other ways repairing his works. These repairs necessitated the demolishing of the old sawmill that has stood on this site for nearly eighty years, a mill being built there by the late Deacon Stone in 1797" (*Vermont Watchman* September 9, 1885). Another newspaper noted that, "Ira Haines is tearing out the flume in his factory, and is putting in a new penstock" (*Argus and Patriot* August 26, 1885). <sup>39</sup>

The Rev. Fred Blodgett (1874-1954), a stepson of Lelia (Haines) Blodgett (a sister of Edward, William, and Ira Haines, who was "for some years one of [the] weavers" in the woolen factory) described the operation of this mill as he remembered it as a boy:

"the wool came tied up in bundles, as it was sheared from each sheep. It was tied with a heavy string called "wool twine." We boys used to beg it from Mr. Haines and tying the pieces together made 'reins' with which we drove each other about. The raw wool was first 'washed.' This was done down in the cellar of the mill where water from the penstock spun the waterwheel with a roar that was quite deafening. The wool was placed in a wooden channel and as the water poured over it, it was beaten back and forth

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by a heavy maul moved by machinery. When properly cleaned it was drawn out into 'rolls' about the size of a large finger and two to three feet long. <sup>40</sup> The next process was 'spinning,' making it into yarn ready for the weaving into cloth. This was wound onto 'bobbins' ready to put into the loom. The looms that wove it into cloth were usually tended by women . . . It was very interesting for us youngsters watch this process as the shuttles flew back and forth and as the looms made a terrific thrashing noise. As the cloth came from the looms it was measured into 'bolts' after it had been 'shrunk' and was ready for the market. A high grade of cloth was known as Haines' Full Cloth for men's heavy suitings" (Blodgett 2008). Ira Haines sold much of the factory's output in Montpelier (*Argus and Patriot* December 23, 1908).

The woolen cloth business apparently had many fluctuations in fortune. Of the Haines' mill, it was stated in 1882 that, "quite extensive business has been done sometimes here" (Hemenway 1882:84). In the summer of 1883, it was reported that, "the woolen mill of I.F.

<sup>&</sup>lt;sup>39</sup> Ira Haines later acquired the rights to the approximately 46 acre West Hill Pond (aka. E.B. Hazen Pond), on Jug Brook, which is located about 2.78 km (1.73 mi) north northeast of the current proposed project area, as an additional reservoir for his works.

Haines is now running on full time" (*Argus and Patriot* June 27, 1883). In 1887, it was reported that "Ira F. Haines, while closing the waste gate to his factory dam last Thursday, was thrown from the dam upon the rock below, a distance of more than ten feet. His left limb and side were quite badly bruised, and left ankle sprained. It will probably be some time before he will fully recover" (*Vermont Watchman* September 21, 1887). In 1897, it was reported that the Lower Cabot mill of I. F. Haines, which was equipped one set of carding machines and four looms," had been "idle since Mar. '95" and was "for sale" (Anonymous 1897:235). The Rev. Blodgett also noted that the factory "finally closed and stood idle for some years" before it "was sold to other parties" (Blodgett 2008).

Late in July of 1897, a significant flood affected the area. At the time, it was said to have been "the worst freshest in the history of the town" (Caledonian July 30, 1897). The storm began on the night of Friday July 24 and continued into the next day (Vermont Watchman July 28, 1897). Newspapers reported that in Lower Cabot, "the cloud burst . . . broke all previous records for rainfall since 1833" (Vermont Watchman July 28, 1897). It was said that "the water fell not in drops, but in streams until about four o'clock Saturday morning then it took a let up until seven o'clock when it took a new hold and it appeared as though the very fountains of the [?] were broken up. The beautiful Winooski that is usually so modest in its demeanor began to exert its power . . . removing every obstacle that stood in her way so only two bridges were left from near its headwaters to Marshfield, a distance of seven and one half miles" (Vermont Watchman July 28, 1897). The rain transformed "every little rivulet and brook to a mad and rushing stream" washing out culverts, gouging roads "beyond repair," and covering land "with rubbish and uprooted trees" (Vermont Watchman July 28, 1897). At the confluence of Jug Brook, "the Winooski . . . rose rapidly after eight o'clock so that in a short time the street and meadows around were one complete lake. Several families were obliged to move from their houses" (Vermont Watchman July 28, 1897). At one point, "the woolen mill of I.F. Haines was in danger, and it was feared at one time that it must go. The bridge near his mill, built new last year, and above all high water previous, sailed away down the meadow [going about one-forth mile], taking in its course the bridge by Lee Short's" [and "leaving a large washout"] (Caledonian July 30, 1897; Vermont Watchman July 28, 1897). Although still standing, the

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woolen factory of Ira F. Haines as well as Ford's dam and Farrington & Phelps' sawmill located at the next mill seat downstream "were all considerably damaged" (*Vermont Watchman* July 28, 1897).

In both 1900 and 1910 federal censuses, Ira Haines is listed as farmer or dairy farmer (U.S. Census 1900, 1910). In 1901, it was reported that "L.C. Fisher has set up his bone and meat cutter in the factory of Ira. F. Haines. He is doing a good business and furnishing a superior kind of hen feed at two cents per pound" (*Vermont Watchman* February 27, 1901). On May 22, 1905, Ira Haines sold "the Haines Woolen Factory" to Harry Daniels of East Montpelier for \$600 (CLR 21:72; *Vermont Watchman* May 24, 1905). On September 29, 1909, Harry Daniels sold the factory, water privilege, and machinery to J.A. Woodward of Cabot for \$1,000 (CLR 21:310). In

<sup>&</sup>lt;sup>40</sup> These were "rolags" that were produced by the condensing carding machine.

January of 1910, it was reported that "the Haines factory is undergoing repairs, preparatory to turning it into a box factory. A new wheel and penstock have been put in and it is soon expected to be in working order" (Vermont Watchman January 27, 1910). On July 27, 1912, J.A. Woodward sold the Haines Mill along with its mill scales, belting and pulleys, and the water rights to Fred J. Bancroft of Pawtucket, Rhode Island (CLR 23:106). Frederick "Fred" J. Bancroft (1843-1918), a son of John and Alice (Ayers) Bancroft of Plainfield, Vermont, was the founder of the Bancroft Sporting Goods company of Pawtucket, which specialized in racquets for court and lawn tennis as well as squash<sup>41</sup> (Burlington Free Press December 31, 1943; Gravestone, Oak Grove Cemetery, Pawtucket, Rhode Island; U.S. Census 1850, 1910). In ca. 1914, it was reported that Bancroft had "a sawmill and tennis goods factory at Lower Cabot" (Vermont Bureau of Publicity 1914:145, 241). After Fred Bancroft's death, his brother and business partner, William Bancroft (1864-1943), sold the old Haines Mill in Cabot to Walter Martin and Ward B. Carpenter, both of Plainfield, on May 11, 1920 (Burlington Free Press December 31, 1943; CLR 25:210; Vermont Secretary of State, Vermont Vital Records 1720-1908). On October 28, 1920, Martin and Carpenter sold the Haines Mill (except for all of the pulleys and shafting and the stuff stored inside of in the building) to Harry L. Clark (CLR 25:263).

Harry Lee Clark (1873-1956) had been born in Marshfield to Fred and Flora (Dodge) Clark (Vermont Secretary of State, Vermont Death Records 1909-2008). Harry Clark moved to Cabot ca. 1919, where he became the proprietor of a sawmill and a manufacturer of wooden butter boxes (U.S. Census 1920, 1930; Vermont Secretary of State, Vermont Death Records 1909-2008). A neighbor, Geraldine (Noyes) Bickford (1913-2013), recalled, "there was a butter box shop here in Lower Cabot behind my house. It made wooden boxes and lined them with butter paper which was transparent. We used it for tracing paper, we kids . . . My father [Albert W. Noyes] worked at that mill in his old age after we moved here, and this house hadn't been wired for electricity before that so we got the power from the mill . . . at night the lights would start fading, and then they'd go off" (Brown, Carpenter, and Legare 1999:32; Gravestone, Durant Cemetery, Cabot, Vermont).

On January 27, 1925, fire destroyed the former Haines Woolen factory building. According to the newspapers, "the butter box factory owned and operated by H.L. Clark at

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Lower Cabot was entirely destroyed by fire between 8 and 9 o'clock Tuesday morning, entailing a loss of about \$10,000, which is partially covered by insurance . . . Apparently the fire started in the engine room gaining headway after being discovered. Men were summoned from both villages and from nearby farms but they were unable to save the building. Fortunately, the wind was blowing from the north, otherwise surrounding buildings surely would have burned. Much sympathy is felt for Mr. Clark in his misfortune as the box factory was a growing industry and gave employment to a number of people in Lower Cabot. He had just completed extensive modern improvements in and around the factory involving quite an outlay of money. There being about \$4,000 worth of machinery in the factory" (*Caledonian-Record* January 28, 1925).

<sup>&</sup>lt;sup>41</sup> The members of the Bancroft "family spent many summer vacations at the Plainfield Inn (formerly known as the Bancroft Inn, built by Fred Bancroft)" (*Burlington Free Press* December 31, 1943).

Afterwards, "Harry Clark dismantled the Baptist Church/Paquin paint shop building on the Southwest Hill Road and used the lumber to build a new, less imposing shop and sawmill on the site of the burned factory" (Blodgett 2008; Brown, Carpenter, and Legare 1999:32). In June of 1928, a small fire at the box factory of H.L. Clark was "extinguished before serious damage was done" (*Burlington Free Press* June 13, 1928).

On April 11, 1946, Clifton T. 'Chub' Clark (1909-1985), son of Harry and Rose (Morrill) Clark, a sawyer, bought the mill from his father <sup>42</sup>(CLR 30:342; Trombley 1977:24; Vermont Secretary of State, Vermont Death Records 1909-2008). Longtime Cabot resident Carlton Domey (1928-2014) recalled that: Chub "didn't have to have all this fancy equipment and stuff to run a sawmill. He made do with what his father had before him and kept it tinkered up" (Brown, Carpenter, and Legare 1999:32). Carlton Domey also reported that Chub Clark "bought a diesel engine to run his sawmill because the water power some summers dried up and he'd empty West Hill Pond . . . but Chub was a little bit on the tight side in the world and he never run that diesel unless he absolutely had to" (Brown, Carpenter, and Legare 1999:32).

Various details of Chub Clark's mill were later recalled by Hap Hayward, another sawmill operator, as follows: "I knew Chub's mill quite well, but I would never run it! He had a lot of levers he had to pull and twist and turn, but they'd all work . . . as I remember he had a great big wheel inside the mill. You turned the wheel and it opened the gate that let water in. This big iron wheel was in a big cement wall" (Brown, Carpenter, and Legare 1999:33). He also stated that "Chub had his [turbine] belted onto a log horizontal shaft, it went crossways of his mill. He could belt down from that to different machines . . . the building would just about take off when the belts start running. It made a terrific rumble as it got going. It's the wooden gears that what made most of the noise" (Brown, Carpenter, and Legare 1999:33). "I guess he was using diesel out to the sawmill. But he also had a different turbine for out there in the sawmill. It's inside a steel presshead, they'd call them. Years before that his father had a great monstrous one-cylinder engine down in the cellar, underneath there somewhere. They called it a helper engine. Burned kerosene. And it was a monster" (Brown, Carpenter, and Legare 1999:33). "The sawdust just went down underneath. See the road was right there. He didn't have any place to put a sawdust bin really. He didn't have much place for anything really" (Brown, Carpenter, and Legare 1999:33). Another observer noted that: "Chub had a huge furnace towards the back of the shop. It took four foot wood" (Brown, Carpenter, and Legare 1999:33).

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In June 28-30, 1973, Vermont was visited with "the worst flooding in the state since 1927" (*Times Argus* July 2, 1973). Statewide, this flood resulted in three deaths and millions of dollars in damage<sup>43</sup> (*Times Argus* July 2, 1973). In Lower Cabot the flood "wiped out the back side of the [Clark] mill" (Trombley 1977:24). The damages, however, "were repaired the same year" (Trombley 1977:24). Shortly after this, on July 2, 1976, Clifton and Dorothy Clark sold the mill (and the "house that went with it") to Daniel (Dan / Danny) Davis, a U.S. Air Force veteran (*Burlington Free Press* August 21, 1977; CLR 38:306; see also 34:78, 34:79; Trombley

<sup>&</sup>lt;sup>42</sup> This transfer included additional water rights from Mertle and Hortence Utley on Jug Brook, where Charlie Utley had a mill located "halfway from West Hill Pond to Lower Cabot" (Brown, Carpenter, and Legare 1999:31; CLR 29:332; 30:439). H.L. Clark got these rights from Capitol Savings bank on May 22, 1940 (CLR April 11, 1946).

1977:24). Davis rechristened the mill the "Headwater Mill" and specialized in "cutting logs into boards for barns and houses in the area," making cheese boxes, and some custom work (Figure 18) (*Burlington Free Press* August 21, 1977). At the time, a newspaper reported that: "Davis hasn't changed much about the mill except its name . . . "inside, the mill looks much as it must have when C. T. Clark General Mill Work employed six men and put out 1,000 wooden butter boxes a day for the Cabot Creamery" (*Burlington Free Press* August 21, 1977). In the 1970s, this was the "only remaining water-powered commercial sawmill in Vermont" (*Burlington Free Press* August 21, 1977).

In January of 1981, Davis installed the first fully automated sawmill made by the Lane Manufacturing Co. of Montpelier, in the Headwater Mill (*Burlington Free Press* April 20, 1981). This \$60,000 machine was capable of cutting 20,000 board feet of lumber a day (*Burlington Free Press* April 20, 1981). Aerial photography suggests that the western addition to the mill, the section built on cylindrical poured concrete piers, was built between 1974 and 1982 (Figures 19 – 22). The Headwater mill operated until about 1997. By 1999, the property had been acquired by Edward Larson, the current owner (Brown, Carpenter, and Legare 1999:32).

Additional floods known to have affected the project area to some degree included those of September 1828, August and October of 1869, and August of 1902 (*Burlington Free Press* August 2, 1902; *Caledonian* August 6, 1902; *Christian Repository* August 28, 1869; *North Star* September 9, 1828; *Vermont Watchman* July 28, 1897). This list is not complete. For example, possible damaging floods in 1927, 1945, 1992, and 2011, have not been researched for its impact on the site this report. In August of 1902, a flood at Lower Cabot "rendered" the "bridge leading to Dea. Haines . . . impassible" (*Caledonian* August 6, 1902).



Figure 18. View across the Headwater Mill, looking west; note top of dam is at center (photograph by Carolyn Bates; *Burlington Free Press* August 21, 1977).

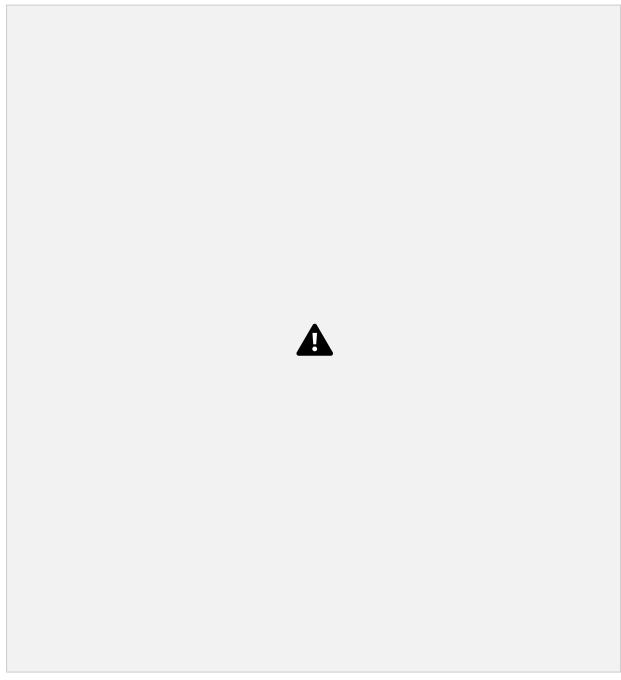


Figure 19. Detail of an aerial photograph taken in 1942, showing the project area (United States Soil Conservation Service 1942).

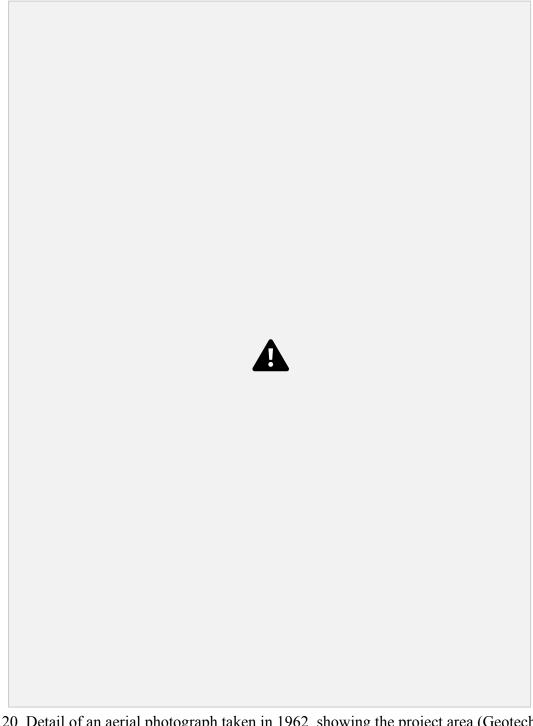


Figure 20. Detail of an aerial photograph taken in 1962, showing the project area (Geotechnics & Resources Inc., 1962).

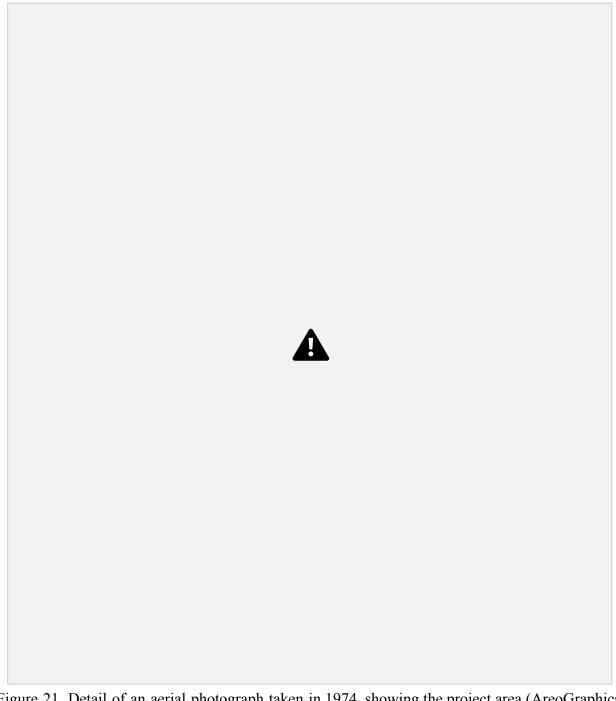


Figure 21. Detail of an aerial photograph taken in 1974, showing the project area (AreoGraphics Corp., 1974).

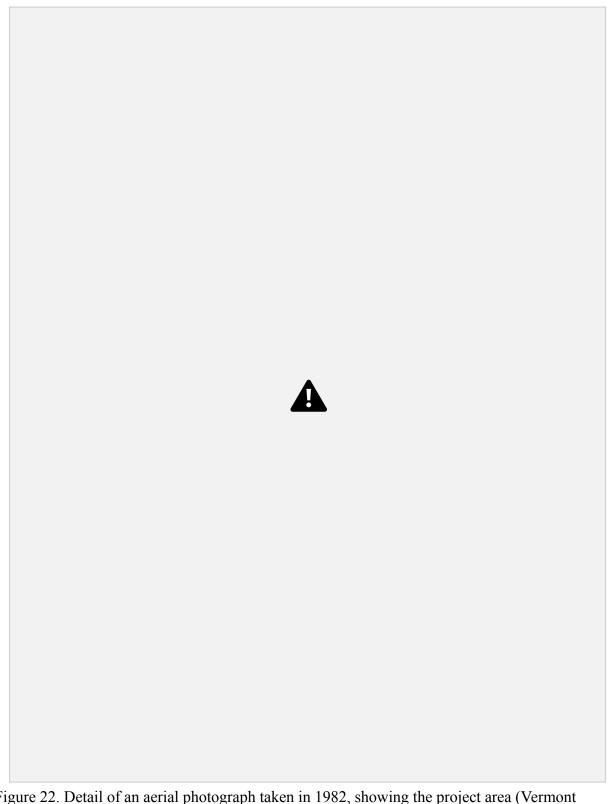


Figure 22. Detail of an aerial photograph taken in 1982, showing the project area (Vermont Mapping Program 1982).

## Shingle Mill / Wheelwright & Carriage Shop / Cider Mill (No Longer Extant)

On April 25, 1838, Alden Webster sold a small part of the woolen mill property to Horace Haines, James M. Harris, and Samuel Sampson Jr. along with the privilege: "of bringing water in a flume three feet wide and one and half high from the back door of my [Alden Webster's] shop by the side of my shop" to run a shingle mill and joiner shop for \$50 (CLR 7:135). This deed also conveyed the right to "raise water by the side of my [Alden Webster's] shop," but in as way as not to interfere with the operation of his waterwheels (CLR 7:135). Also included in the deed was the privilege of "building the same further out into the stream then I own" (CLR 7:135). A later deed best describes the parcel as beginning in the center of the stream on Sawmill Road (meaning its historic alignment, not its present alignment) and running upstream 14 m (46 ft) to a stone with a notch cut into it, then west 19.9 m (65 ft), then south 7.6 m (25 ft) to the road then on the road to the beginning (CLR 8:149).

On June 23, 1838, Samuel Sampson Jr. sold his share of this property: including one third of the building "now standing on the same;" half of the wheel that carries the machinery and the drums; and half of the shingle machine and jointer "in sd building" to Horace Haines (CLR 7:141). On the same day, June 23, 1838, Horace Haines sold an interest in this property to his son, William J. Haines (CLR 7:170). It appears, however, that James Harris may have taken the lead in this business. James M. Harris is listed in Cabot in the 1840 census with a household of five: including 3 males aged 20-29 years; 1 female 20-29 of age; and 1 female under 5 years of age; with three "persons employed in manufactures and trade" (U.S. Census 1840).

On November 10, 1842, James M. Harris sold his interest in the shop along with his house at the intersection of Sawmill Road and VT Route 215 to Stephen Abbott (CLR 8:11). On January 9, 1844, Stephen Abbott sold his interest in the shingle and joiner shop to Lucius Dyer (1820-1883), a native of Bethel, Vermont, but then a resident of Royalton (CLR 8:149; Gravestone, Lyra Cemetery, Good Thunder, Minnesota; U.S. Census 1860). On April 17, 1847, Horace and William Haines sold their 2/3rds interest in the shingle mill & shop, with its wheel and drum, but not including the shingle machine, belt, and jointer, to Lucius Dyer for \$25 (CLR 8:488). Lucius Dyer sold the mill/shop (now owing all interests in it) and his house as well as a parcel of land on the south side of the road opposite the house with a barn on it (that he added to the property), to Moses L. Sumner on August 24, 1849<sup>45</sup> (CLR 9:204).

Moses L. Sumner (ca. 1821-1898), was a son of George Sumner (1786-1866) and Susa / Susannah Stone (1790-1863), a daughter of Deacon Moses Stone (Bartlett 1926:1926:179; Gravestones, Durant Cemetery, Cabot, Vermont). Moses L. Sumner was listed in the 1850 census as a joiner and in 1860 as a master carriage maker (U.S. Census 1850, 1860). Moses Sumner sold the mill/shop, the house, and the barn to his father George Sumner on December 26,

<sup>&</sup>lt;sup>44</sup> Here, Alden Webster may be referring to "wallowing," which occurs when the tail water is backed up by higher than normal stream levels and impedes the turning of the wheel (Webb and Cox 2012:33). Therefore, this second dam may have been of limited height. It is *possible t*hat the shingle mill only operated a flutter wheel. However, more information is needed.

<sup>&</sup>lt;sup>45</sup> By 1850, Lucius Dyer had moved to Marshfield, where he became a lawyer (U.S. Census 1850). He later moved to Blue Earth County, Minnesota, to farm (U.S. Census 1860, 1870, 1880).

1849 (CLR 9:246). Oddly, the shop on the river does not appear on the Walling map of 1858 (see Figure 8). George Sumner sold the same property to Susan M. Collins for \$500 on February 29, 1864 (CLR 12:488). By this time, the "lower shop" associated with the property (presumably the one on the river) included a cider mill, a turning lathe, one saw frame and arbor, three circular saws, one gig saw frame and saw, and one boring machine (CLR 12:488).

On February 29, 1864, Susan M. Collins, wife of Dr. Samuel Collins of Danville, sold this property to her daughter, Susan "Sue" A. P. (Collins) Hoyt (1834-1923), the wife of Orman L. Hoyt (ca. 1831-1897) (CLR 12:494; U.S. Census 1850; Vermont Secretary of State, Vermont Death Records 1909-2008, Vermont Vital Records 1720-1908). Orman Hoyt was son of Stephen and Roxana (Lyford) Hoyt of Cabot (U.S. Census 1850; Vermont Secretary of State, Vermont Vital Records 1720-1908). In 1860, he is listed in his father-in-law's household as a house joiner (U.S. Census 1860). In 1863, he was listed as a wheelwright living in Cabot (*U.S. Civil War Draft Registrations Records 1863-1865*). In 1870, he is listed in Cabot as a carriage maker (U.S. Census 1870). When he died in 1897, Orman Hoyt lived in Plainfield and was listed as a sawyer (Vermont Secretary of State, Vermont Vital Records 1720-1908).

On November 16, 1872, Orman and Susan Hoyt sold the property with, the "lower shop" and its machinery, the house, and the barn to Palmer B. Elmer (also known as Bennett Palmer Elmer) for \$1200 (see Figure 9) (CLR 15:112). The Beers map of 1873, depicts two dams in this area of the Winooski River and indicates that there was a dug tail race running from the "lower shop" south under road/bridge on Sawmill Road, before rejoining the river channel (Beers 1873). At present, however, there is no readily identifiable evidence of the second (lower) dam. This appears to be the dam that Alden Webster granted the right to build in 1838. According to an 1877 business directory, Elmer then operated the "Cabot Carriage Manufacturing Co." (Walton 1877:65). The 1880 census lists Elmer as a 33-year-old wheelwright (U.S. Census 1880). The Washington County Gazetteer of 1889 indicates that Palmer B. Elmer was a "printer, <sup>46</sup> carpenter and joiner" (Child 1889:pt 2; p 54).

On November 13, 1900, Elmer sold his property to Fowler S. Ford (1829-1906), but with no mention of any machinery (CLR 20:218; Gravestone, Peacham Corner Cemetery, Peacham, Vermont; U.S. Census 1900; Vermont Secretary of State, Vermont Vital Records 1720-1908). This suggests that the mill/shop building had been abandoned and/or was no longer standing at that time. According to the Rev. Fred Blodgett, at one point "there were the remains of . . . a mill just below the Haines woolen mill at Lower Cabot where the modern saw mill of Mr. Clark now stands" (Blodgett 2008). Fowler Ford was an Englishman who served in the American Civil War with the 7<sup>th</sup> Vermont Infantry from 1864 to 1866 (Peck 1892:282; U.S. Census 1900). In 1900, Ford (then in his 70s) and his wife, Mary, lived in Cabot where he was listed as a gardener (U.S. Census 1900).

On January 29, 1908, this property passed from Fowler S. Ford's estate to Richard Doying (1910 U.S. Census a 65 year sawmill employee) (CLR 21:554). On November 24, 1916, Doying sold the same property to Eugene Hall (CLR 25:12). Eugene Hall sold it to H.L. Clark on March 31, 1921 (CLR 25:267). In September of 1957, it was sold by the guardian of H.L.

Clark's widow to Thomas Clark (CLR 34:174). Thomas Clark sold it to Harry Clark in October of 1957 (CLR 34:175). Harry Clark sold to Chub Clark, and then Chub Clark sold to Dan Davis.

## PROJECT AREA HISTORIC PROPERTY DESCRIPTIONS

## Clark's Sawmill Dam

Clark's Sawmill Dam is located on the Winooski River in Lower Cabot, Vermont, approximately 210 ft north of Sawmill Road (see Figure 2). The dam was originally constructed ca. 1797 to provide water power for a sawmill operation, and a structure has remained in place at the site since that time (Figures 23 and 24; see Figures 8, 9, 11, 13, 14, 18 – 22). Clark's Sawmill Dam has an approximately 21.5 square mile (2.6 square kilometer) drainage area and can form an impoundment with a roughly 3 acre surface area (about 0.5 million cu ft of water) (Haybrook 1952:40). The current dam (VT State ID #39.04) is a combination stone and concrete masonry, straight, overflow-type<sup>47</sup> gravity dam (Figures 25 – 35). According to the Vermont Agency of Natural Resources, the overall length of the dam is 41.1 m (135 ft). The spillway section is 70 ft (21.3 m) long and the intake or headwall section (where the penstock is on the western side of the structure) is 18 ft (5.5 m) long (Crowley 1940b:626; Haybrook 1949). The maximum height of the dam is about 14 ft (4.3 m)<sup>48</sup> and "the spillway crest is [0.5 m] 1.5 ft below the top of the dam" (Haybrook 1949). The main portion of the dam, which is founded on ledge, <sup>49</sup> is composed of un-mortared rubble brought to course (Haybrook 1949). The stone used in the construction of the dam may have been sourced from nearby exposed ledge outcrops. According to state documentation, in cross-section, the dam is "a vertical retaining wall" varying in thickness from 3 ft to 5 ft (0.9 to 1.5 m)<sup>50</sup> (Haybrook 1949). The spillway portion of the dam is now capped with concrete, ranging from 1 to 4 feet (0.3 to 1.2 m) top to bottom (Haybrook 1949). The majority of this concrete was probably added to the structure in 1924<sup>51</sup> by Henry L. Clark (Anonymous 1979; Haybrook 1949). The retaining wall on the western side of the structure and the 'modern headworks' appear to date to between 1949 and 1979 (Anonymous 1979; Haybrook 1949). There is a 4.5 ft (1.4 m) diameter steel penstock on site, but it is no longer connected to the dam structure<sup>52</sup> (Haybrook 1949). This penstock once conveyed the water from the dam "to the water wheel at the sawmill about 100 feet [30.5 m] away"53 (Haybrook 1949). In addition to its head gate, the dam also has a timbered sluice gate / sluiceway<sup>54</sup> 2 ft square (0.6 m) located just above the base of the dam in the western portion of the spillway section (see Figure 26) (Haybrook 1949).

<sup>&</sup>lt;sup>47</sup> Meaning that the spillway is incorporated into the dam.

<sup>&</sup>lt;sup>48</sup> The elevation of the crest of the dam is about 927 ft amsl and the level of the stream bed is about 940 ft amsl (Anonymous 1979).

<sup>&</sup>lt;sup>49</sup> This probably negated the need to build an apron (Evans and Jones 1848:199).

<sup>&</sup>lt;sup>54</sup> This appears to be the drain or low level outlet / bottom outlet.

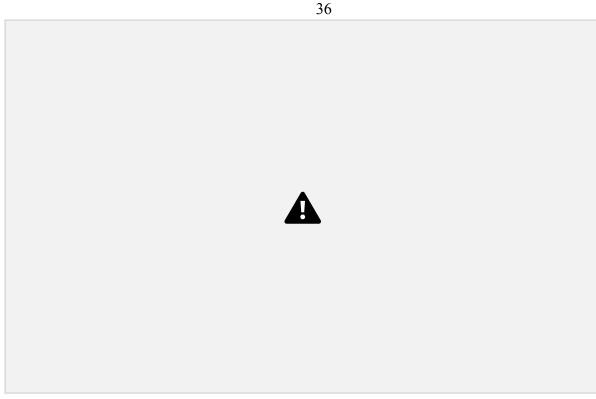


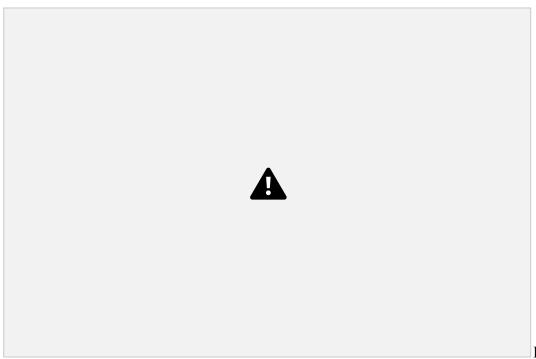
Figure 23. Historic view, prior to October 1924 (no concrete in place), of Clark's Sawmill Dam at Lower Cabot, looking east (Cabot Historical Society).

<sup>&</sup>lt;sup>50</sup> According to one historical treatise on dams and mills, "where the foundation is good they [masonry dams] may be built nearly perpendicularly" (Craik 1870:163).

<sup>&</sup>lt;sup>51</sup> There is a date on the concrete of the wing wall "October 4, 1924, H.L. Clark."

<sup>&</sup>lt;sup>52</sup> This penstock *may* date to ca. 1925 (after the major fire), it probably had to be "large and strong enough to carry the great volume of water required by a modern turbine" (Webb and Cox 2012:33).

<sup>&</sup>lt;sup>53</sup> The wall of the mill structure itself was about 18.3 m (60 ft) away (Anonymous 1979).



Figure

24. Historic view, post 1924 (concrete in place) of Clark's Sawmill Dam at Lower Cabot, looking northeast (Cabot Historical Society).

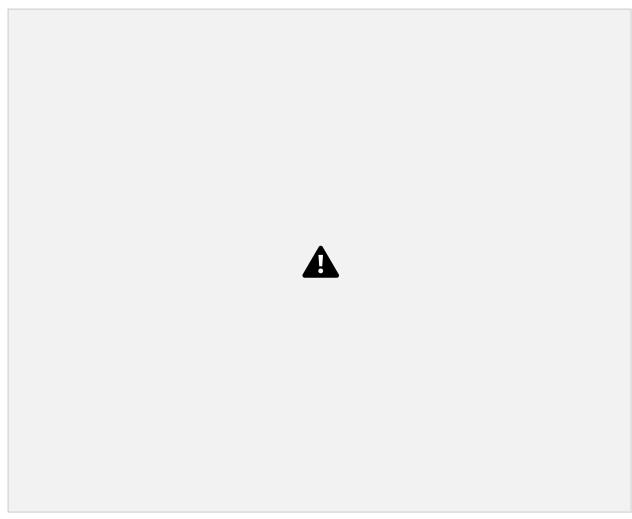


Figure 25. A Transit and Tape Survey of Clifton Clark Prop., Lower Cabot, Vermont (Towns 1976).

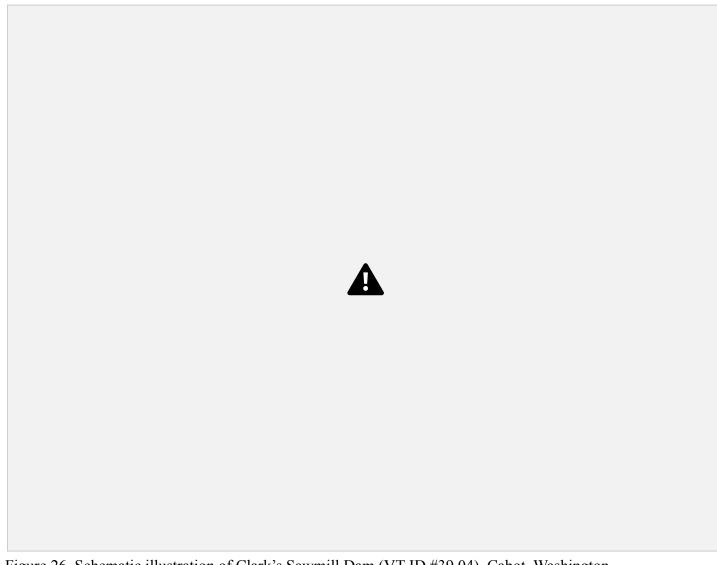
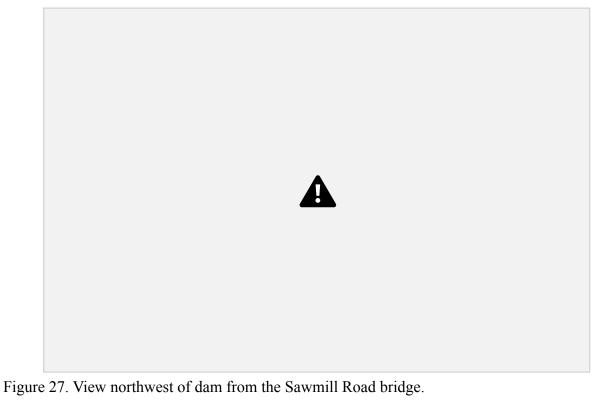


Figure 26. Schematic illustration of Clark's Sawmill Dam (VT ID #39.04), Cabot, Washington County, Vermont, based on information provided by the Vermont Agency of Natural Resources (Anonymous 1979; Haybrook 1949), historic photographs, and observations made on site (not an actual survey).



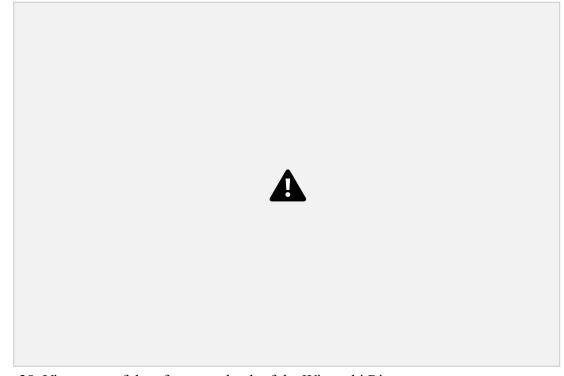


Figure 28. View west of dam from east bank of the Winooski River.





Figure 29. Views west of face of the dam from east bank of the Winooski River.





Figure 30. View west of dam from east bank of the Winooski River; eastern end of spillway at center and note concrete cap over stone.

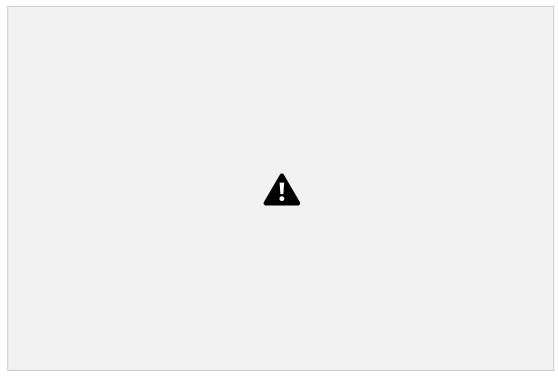


Figure 31. View northwest of concrete capped wall that attaches to east wingwall of dam, along east bank of the Winooski River.

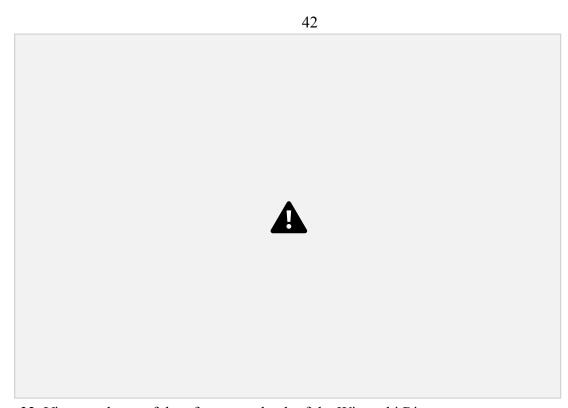


Figure 32. View northeast of dam from west bank of the Winooski River.

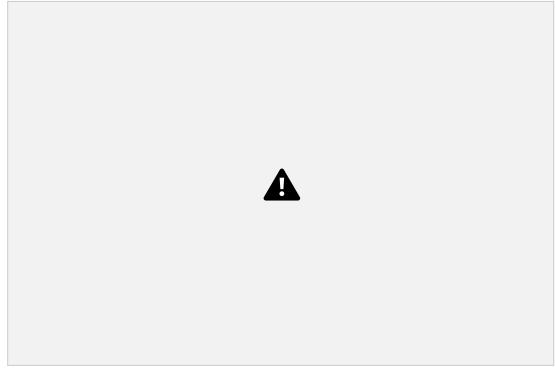


Figure 33. View northeast of face of dam from west bank of the Winooski River; note water rushing through penstock opening at bottom of stone (center).

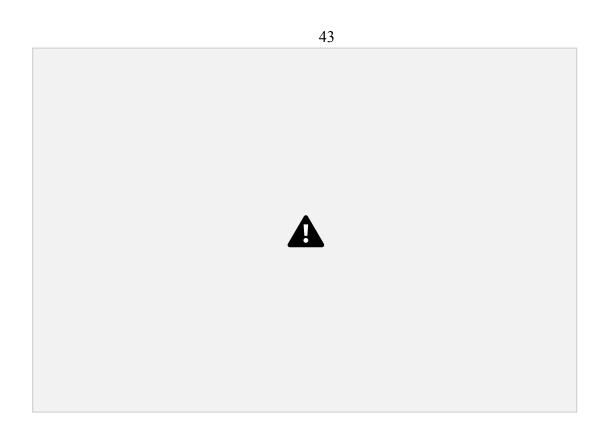


Figure 34. View northwest of dam from the Sawmill Road bridge; note detached steel penstock at center background.

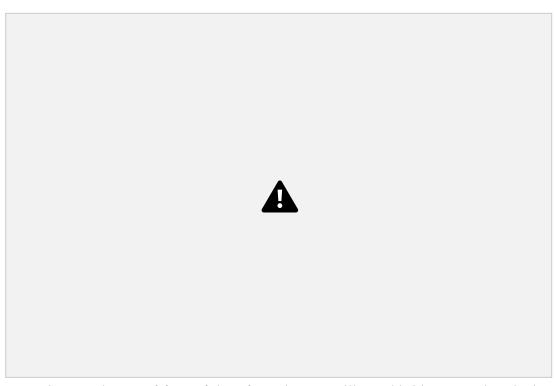


Figure 35. View northwest of face of dam from the Sawmill Road bridge; note detached steel penstock at left and penstock opening behind.

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It is likely that the stone portion of the dam is the original ca. 1797 construction. Stone was commonly used for dams were the site was on a ledge, the length of the dam was to be relatively short, and where stone was easily accessible (Craik 1870:163). Leffel (1874) stated that:

"it must still be admitted that stone is on many accounts the most suitable material for a barrier against the pressure of water, and the one which will be selected where the circumstances do not make it too costly, or where the object in view cannot be as effectively accomplished by more convenient methods . . . Its weight, though it renders the work of building more arduous, is a source of strength when it is once in position, such as can be hardly be given to any other material; it is subject to neither rot nor rust, and unless undermined or caved, in consequence of the weakness of some other part of the structure, it is not liable to yield to any of the ordinary forces which a dam is intended to resist. When properly guarded from the gradual inroads of the water through apertures or crevices, or in the form of underwash by which the foundations are sapped, a stone dam is an unmovable bulwark and will withstand the heaviest freshets, saving in the long run, in many cases, by the avoidance of any outlay for repairs, many times the difference between its cost and that of cheaper, but less reliable structures" (Leffel 1874:15).

Although not visible during the site inspection, it is possible that this dam, like other un mortared rubble stone dams, has an earthen fill (e.g. gravel and clay) on its upstream side to prevent seepage through and under the structure. If present, this fill could have been brought up almost even with the top of the dam and may extend upstream (up to about 30 ft). Historic images of the dam indicate that before the addition of the concrete cap to the spillway, the top of the stone dam was fitted with short planks to conduct the discharge of water out and away from the downstream face of the dam. Additionally, it appears that the upstream side of the spillway section was once protected by a series of heavy planks set at an angle<sup>55</sup> (see Figure 23). These may have been placed so that heavy logs, large pieces of ice, or other debris would be carried over the dam and not catch on or collide with the dam (Evans and Jones 1848:199). The planks could have also protected an earthen fill, if present, from erosion (Craik 1870:163).

Historic records and photographs indicate numerous changes have been made to the dam over time. For example, in 1885, the dam was repaired, the old sawmill was removed and the elevated wooden box flume<sup>56</sup> was replaced by a penstock, most likely a wood stave type. A new wheel (turbine) and penstock were installed when the woolen mill was converted into a wood working shop in 1910. Historic photographs and state records indicate that most of the components for the old headworks were wooden including the forebay (which "serves the purpose of confining water where it is free from turbulence so that sand and dirt may settle before the water goes through the penstock to the turbine"), trash rack (to stop floating

<sup>55</sup> It appears that 22.5 degrees from surface water was considered optimum (Evans and Jones 1848:200; Webb and Cox 2012:29). These planks may have been attached to rafters and the whole possibly tied into the stonework in some way.

45

sticks/logs or debris from entering and damaging the water wheel), and gate structures / mechanism (Crowley 1940b:626; Haybrook 1949). The 1925 fire probably brought significant changes to the hydraulic workings within the mill itself. The retaining wall on the western side of the structure and the new headworks appear to date to 1949-1979, and may date to the 1973 flood mentioned above. According to Haybrook's 1952 survey of the jurisdictional sized dams in the state, Clark's Sawmill Dam had minor problems with surface deterioration and leakage / seepage (Haybrook 1952:40). Although obscured from view by ice and/or running water at the time of the site visit, it appears that significant portions of the concrete cap as well as some of the underlying stonework has now been displaced. It also appears there has been some realignment of Sawmill Road (possibly northwards as evidenced by abutments observed immediately south of the current bridge), and the infilling of the old tailrace indicated on the 1873 Beers map.

<sup>&</sup>lt;sup>56</sup> The original upstream side of the headworks for the box flume was *possibly* made of close laid stone and/or cemented. The square form of the original outlet is still apparent on the downstream side of the structure. This flume would have been set nearly level to wheel or water box (Webb and Cox 2012:31). The original wool factory (pre-1849/1854) *probably* had a vertical wheel in a wheel pit in its basement. Such wheels were often abandoned in favor of turbines.

The predominantly collapsed Clark's Sawmill is located along the western bank of the Winooski River in Lower Cabot, Vermont, immediately north of Sawmill Road (see Figure 2). As noted previously, Harry Clark constructed the sawmill in 1925, using lumber from a dismantled Baptist Church/paint shop; the sawmill replaced a ca. 1850 mill building owned by Clark that that was destroyed by fire on January 27, 1925. Clark's Sawmill is listed as a contributing resource to the Lower Cabot Historic District (#29) (see Figure 5).

Based on photographs taken in 1977, 1998 and 2000 when the buildings were still standing, most, it not all of the building sections had sloped shed roofs that appeared to be covered in a combination of shingle and sheet metal (Figures 36 and 37; see Figure 18) (Llewellyn:1998, 2000). The sawmill ran parallel to the Winooski River and in planview, in at least the mid-1970s through the early 1980s, appeared as two rectangular sections, with the northern section being much wider than the southern portion (see Figures 21, 22 and 25). Sometime after 1976 and before 1982, another rectangular section was added to the west side of the northern portion of the mill (see Figures 21, 22 and 25). As noted earlier in this review, a flood destroyed the backside (river/eastern side) of the sawmill in June 1973 and it was reported that the building was repaired that same year. An I-beam observed along the eastern elevation of the building during the site visit may be evidence of the repair.

The entire complex was photographed during the site visit (Figures 38 – 55). The collapsed debris and remaining standing parts of Clark's Sawmill indicate that it was of wood frame construction built mostly of two-by-fours, though some larger timbers were observed in sections of the building along the river (likely lumber reused during the 1925 construction). Some of the walls had vertical board sheathing. Asphalt shingle siding is still in place on a former exterior wall within the ca. 1980 addition to the west side. Former window openings are also still in place on this wall. Foundations are a mix of poured concrete, field stone reinforced by concrete, and concrete pilings (under the ca. 1980 addition). It is likely that the stone foundations are the remains of the foundation to the ca. 1850 Haines Mill that stood at this location. A partially standing brick chimney is still present at the site; it is evident in a 1977 photograph of the mill and appears to have been inside the northernmost wall of the complex (see Figure 18). A set of double side hinged wooden doors is still standing; the doors are at the southern end of the collapsed eastern section of the complex.

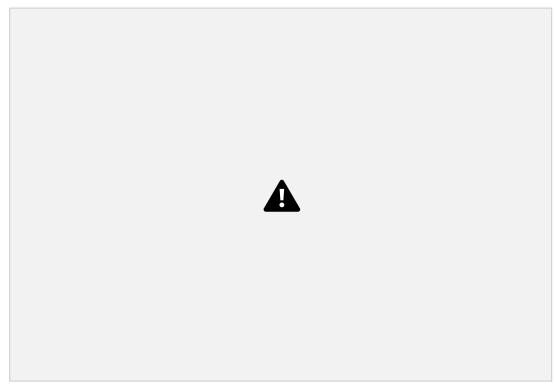


Figure 36. View northwest (1998) along Sawmill Road; saw mill at right.

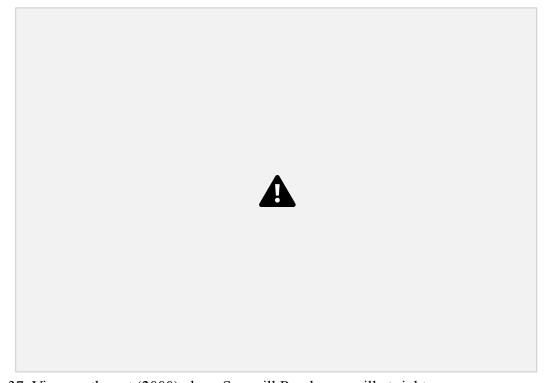


Figure 37. View northwest (2000) along Sawmill Road; saw mill at right.

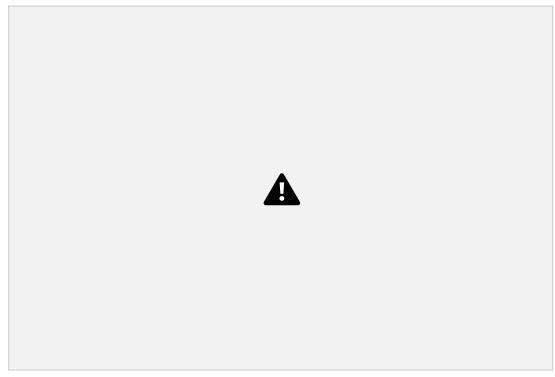


Figure 38. View northeast along Sawmill Road; saw mill at left.

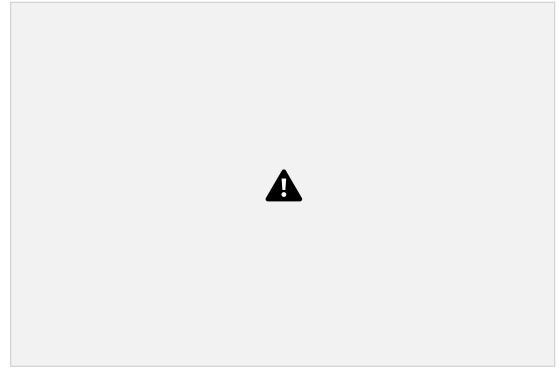


Figure 39. View north of sawmill complex; note Sawmill Road in foreground and collapsed southern section of mill.



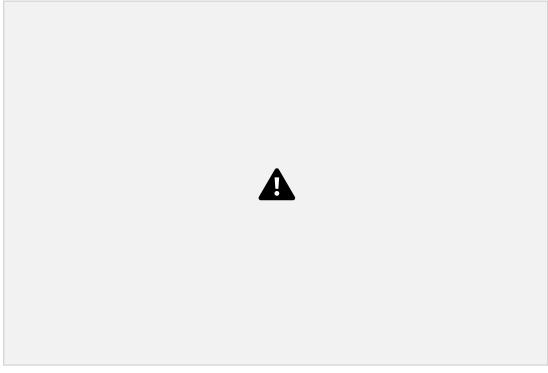


Figure 40. View northeast of ca. 1980 western addition of sawmill.

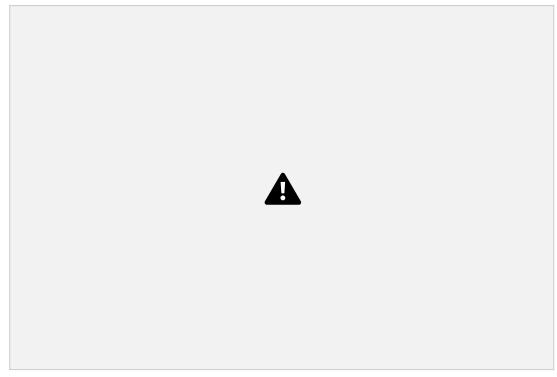


Figure 41. View northeast of partially standing sawmill section at eastern side of complex.



Figure 42. View northeast of doors to collapsed eastern portion of sawmill; partially standing section at right.



Figure 43. View northeast into collapsed portion of sawmill at eastern side of complex.

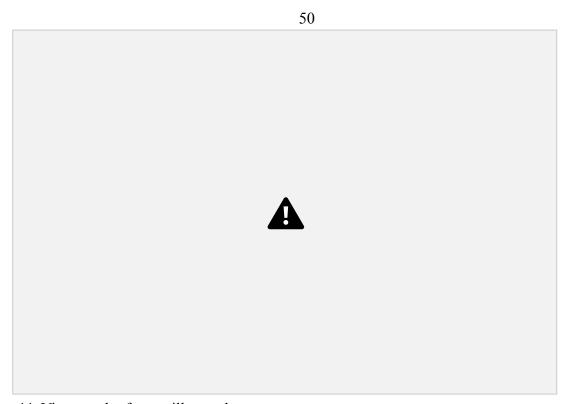


Figure 44. View south of sawmill complex.

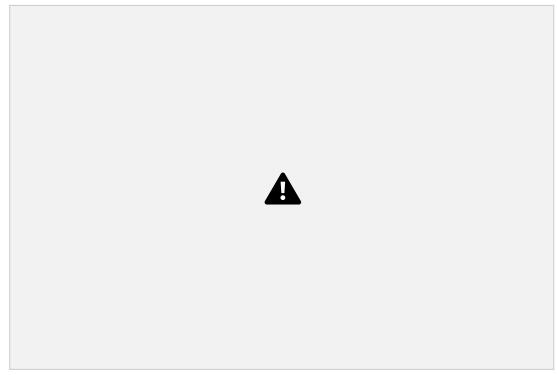


Figure 45. View southeast of sawmill complex.

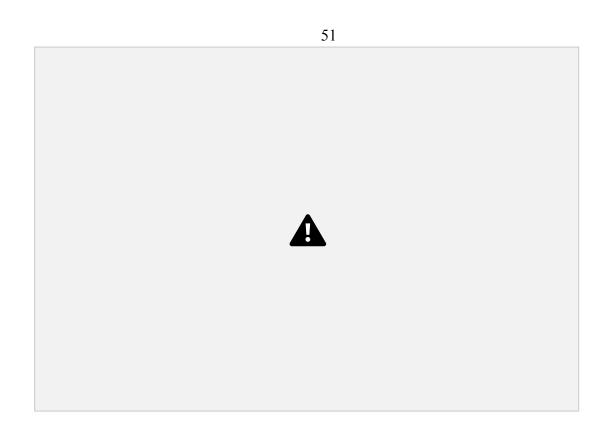


Figure 46. View east of chimney remains at northern end of sawmill complex.

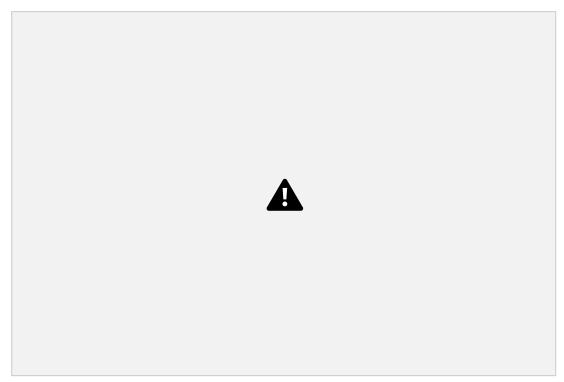


Figure 47. View southeast of collapsed portion of sawmill at eastern side of complex.



Figure 48. View southeast along western wall of ca. 1980 western addition of sawmill.

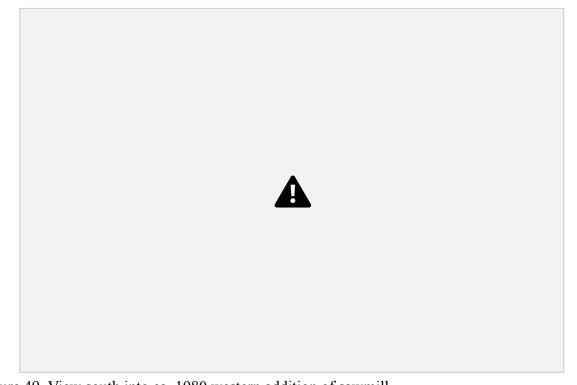


Figure 49. View south into ca. 1980 western addition of sawmill.

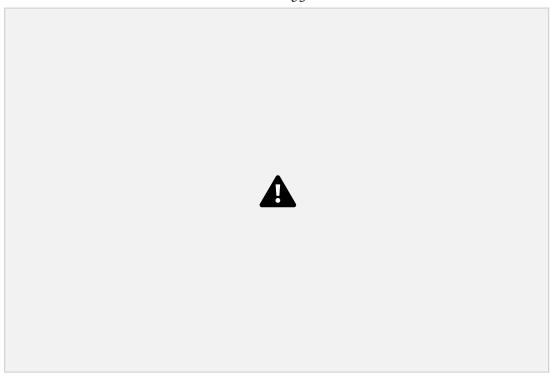


Figure 50. View northeast within ca. 1980 western addition of sawmill; note shingles and window openings on interior eastern wall.



Figure 51. View northeast within ca. 1980 western addition of sawmill; note stone foundation with concrete cap.

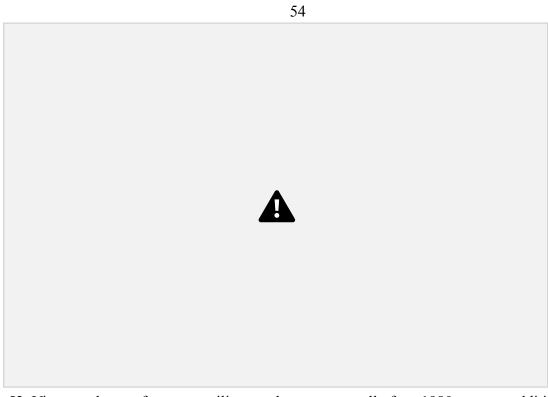


Figure 52. View southeast of concrete pilings under western wall of ca. 1980 western addition of sawmill.

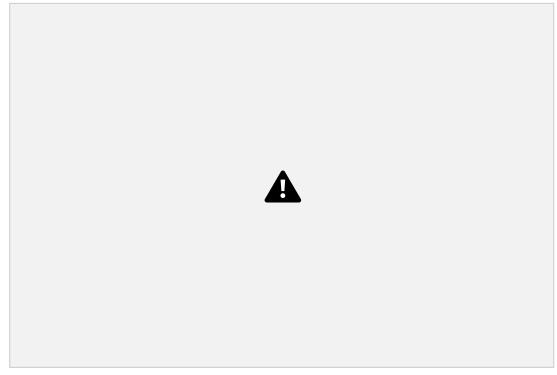


Figure 53. View of stone foundation under western wall of collapsed portion of sawmill at eastern side of complex; ca. 1980 western addition at left.

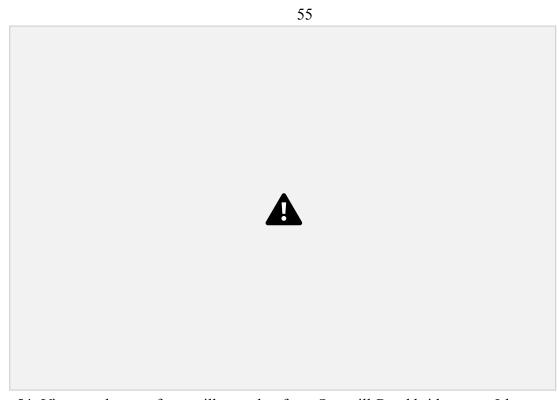


Figure 54. View northwest of sawmill complex from Sawmill Road bridge; note I-beam at

center.

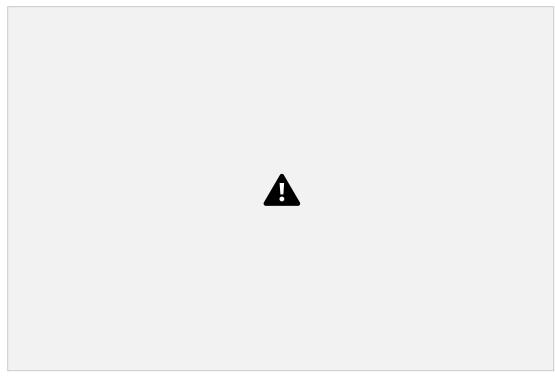


Figure 55. View southwest of sawmill complex from eastern bank of Winooski River.

# 56 Nearby State Register-Listed Buildings

# SR #25 (1758 VT Route 215S)

The house at 1758 VT Route 215S is a 1 ½-story eaves front, gable roof house with a central entrance porch and large shed dormer centered on the front roof slope (Figure 56; see Figures 2 and 5). It has a metal roof and centered cinder block chimney. This building may date to just after 1823, but appears significantly altered. The house is on the 1858 Walling map ("James Atkins") and on the 1873 Beers atlas ("Mrs. Atkins") (see Figures 8 and 9).

James Atkins (ca. 1793-1863), was born in Claremont, New Hampshire (Gravestone, Durant Cemetery, Cabot, Vermont; Vermont Secretary of State, Vermont Vital Records, 1720-1908). He was usually described as a carpenter/joiner (U.S. Census 1850; 1860). He first married Harriet Coburn (1801-1827), daughter of Elihu, in 1823 (Vermont Secretary of State, Vermont Vital Records, 1720-1908), she died in 1827 aged 26 years, and was buried with an infant (Gravestones, Durant Cemetery, Cabot, Vermont). He married his second wife, Maria (Hyatt) Atkins (ca. 1803-1888), who was born in Sherbrooke, PQ, in 1829 (Gravestones, Durant Cemetery, Cabot, Vermont; *Caledonian* July 12, 1888 Cabot p. 1). James Atkins had at least several children including Cordelia (1832-1916), George (1836-1883) and possibly three who died as infants (*Caledonian* July 12, 1888 Cabot p. 1; Gravestones, Durant Cemetery, Cabot,

Vermont). James Atkins bought part of Lot #52 near the mill pond from Moses Stone on May 22, 1823 (CLR5:82). In the 1850 census he is listed with \$800 real estate. He lived at the house in 1858 (see Figure 8). In 1873, the house was occupied by James' widow Maria Atkins and his son, George G. Atkins, also a carpenter/joiner and later, carriage maker (who died 16 July 1883) (U.S. Census 1860, 1880) (Beers 1873). In 1858, James Atkins had a joiners shop where the current Lower Cabot General Store is now located; in 1873 this shop was occupied by his son George (Beers 1873).



Figure 56. View northeast of SR #25 (1758 VT Route 215S).

57

# SR #26 (1738 VT Route 215S)

The house at 1738 VT Route 215S is a 2 ½-story eaves front, steeply pitched gable roof house with a single story wing attached to its north side (Figure 57; see Figures 2 and 5). The main block of the building has a two story projection with paired windows on its front elevation and the wing has a full length hipped roof porch. The entrance to the house is on the wing. The building has wood clapboards and a metal roof. Eaves line vertical board siding described on the 1979 VTDHP Historic Sites & Structures Survey is no longer present, and two barns located on the property at that time are also no longer extant (VTDHP 1979). A building appears at this location on both the 1858 Walling map and on the 1873 Beers atlas as "S. Adams" (see Figures 8 and 9). However, the Beers atlas depicts a building with a different configuration, so this house may have replaced an earlier house that was located here and it may date to after 1873.

The U.S. census indicates that while he lived in Cabot, Seth Adams (b ca. 1808-1892) was in 1850 (41) a laborer; in 1860 (51) a day laborer; and in 1880 (72) a farmer (Gravestones, Durant Cemetery, Cabot, Vermont).

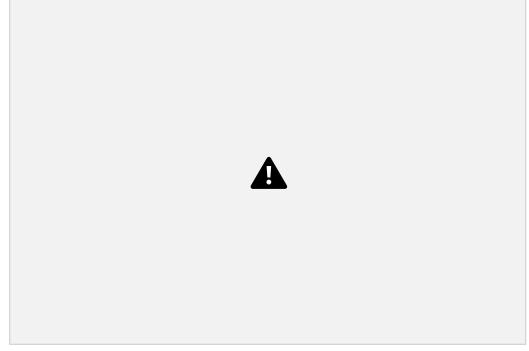


Figure 57. View northeast of SR #26 (1738 VT Route 215S).

58

## SR #27 (1706 VT Route 215S)

The house at 1706 VT Route 215S is a 2 ½-story eaves front gable roof house with a single story wing attached to its south side (Figure 58; see Figures 2 and 5). The main block of the building has a full length, single story front porch. The entrance to the house is centered on the main block and there is a second entrance on the front façade of the wing. The building has wood clapboards and a metal roof. There are exterior cinder block chimneys on the north wall of the main block and on the south wall of the wing. A ridgeline brick chimney present in 2014 Google Earth imagery is no longer present, and a garage located on the property at time of the 1979 VTDHP Historic Sites & Structures Survey, is also no longer extant (VTDHP 1979). A building appears at this location on both the 1858 Walling map and on the 1873 Beers atlas as "Miss S. Stone" (see Figures 8 and 9). The building depicted on the Beers atlas appears to be in the same configuration as the current house. The house likely dates to the 1850s.

the house "built and formerly occupied by Moses Stone" (CLR 8:417; Vermont Secretary of State, Vermont Vital Records, 1720-1908). At the time, the property was described as being on the east side of the road a few rods north of Lucius Dyer's shop (CLR 8:417). Sophia Stone is included in the 1850 and 1860 federal census. In the 1860 census, she is listed as 67 years of age, owning real estate worth \$300, and was a weaver.

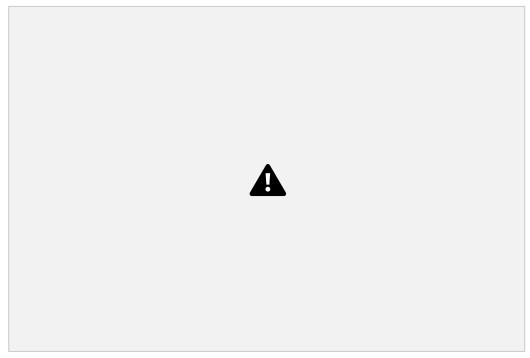


Figure 58. View northeast of SR #27 (1706 VT Route 215S).

59

# SR #28 (33 Sawmill Road)

The house at 33 Sawmill Road is a 1 ½-story gable front house with a single story wing attached to its north side (Figures 59 and 60; see Figures 2 and 5). The main block of the building has a full length, single story, hipped roof front porch and the wing has a shed dormer centered on its front roof slope. The entrance to the house is at the southwest corner of the main block. The building has wood clapboards, a metal roof, and centered ridgeline chimney. Greek Revival style detailing remains on the house, including a wide, divided band of trim under the roofline and corner boards. A large barn-type building sits behind (to the east of) the house. The barn appears more recent and may have replaced a 2-story garage that was described at the property in 1979 but is no longer extant (VTDHP 1979). A building appears at this location on the 1858 Walling map ("M. Sumner") and on the 1873 Beers ("P.B. Elmer") (see Figures 8 and 9). The Beers atlas indicates that a "shop" was attached to the house. The building depicted on the Beers atlas appears to be in the same configuration as the current house. The house likely

dates to the 1850s.

Moses Stone initially owned the southeast corner of Lot #52 (see Figure 7). A sizable part of this parcel, including this property, was sold by Moses Stone to Lyman Stone on February 14, 1835, for \$1000 (CLR 6:296). Lyman Stone sold part or all of this land "where I now live," to Anson Coburn on August 20, 1836, for \$500; (CLR 6:453). Coburn sold a smaller "house lot" from his parcel to James Harris for \$241 on October 15, 1838; no structure is mentioned in the record (CLR 7:157). James M. Harris combined the house lot and the "lower shop lot" (former shingle mill) and sold them to Stephen Abbott on November 10, 1842 (CLR 8:11). Stephen Abbott sold to Lucius Dyer of Royalton on January 9, 1844 (CLR 8:149), and Dyer sold the same to Moses L. Sumner on August 24, 1849 (CLR 9:204). Moses L. Sumner (ca. 1821-1898), was a son of George Sumner (1786-1866) and Susa / Susannah Stone (1790-1863). She was a daughter of Deacon Moses Stone. Moses L. Sumner was listed in the 1850 census as a joiner (29) and in 1860, as a master carriage maker. Moses Sumner sold to (his father) George Sumner on December 26, 1849 (CLR 9:246). Moses appears to stay as occupant (see Figure 8). George Sumner sold the same to Susan M. Collins on February 29, 1864 (CLR 12:488) and on the same day, she sold to her daughter, Sue A.P. Hoyt, wife of Orman Hoyt (CLR 12:494). On November 16, 1872, the Hoyts sold to Palmer B. Elmer (CLR 15:112) (see Figure 9). The 1880 census indicates that he was a 33 year old wheelwright. A newspaper in 1886 noted that "BP Elmer is to move his barn and repair his house.' (Argus and Patriot of April 28, 1886; Cabot Catches p 2). Elmer sold to Fowler S. Ford on November 13, 1900 (CLR:218). A newspaper noted in 1900 that "F.S. Ford is having extensive repairs made upon his house, which he recently purchased of B.P. Elmer (Caledonian November 28, 1900 p. 5 "Cabot"). On January 29, 1908, this property passed from Fowler S. Ford's estate to Richard Doying; the 1910 census lists Doying as 65 years old and working in a sawmill) (CLR 21:554). On November 24, 1916, Doying sold the same property to Eugene Hall (CLR 25:12). Eugene Hall sold to H.L. Clark March 31, 1921 (CLR 25:267). It was sold by the guardian of H.L. Clark's wife to Thomas Clark in September of 1957 (CLR 34:174). Thomas Clark then sold it to Harry Clark in October of 1957 (CLR 34:175). Harry Clark sold to Chub Clark, and Chub sold to Daniel Davis. At the time of the 1979 Historic Sites & Structures Survey, the building is listed as the "Headwater Lumber Co. Office."



Figure 59. View northeast of SR #28 (33 Sawmill Road).



Figure 60. View west of SR #28 (33 Sawmill Road).

## SIGNIFICANCE AND RECOMMENDATIONS

Clark's Sawmill Dam was first built ca. 1797 to power Moses Stone's sawmill, and the dam continued to be used for waterpower until 1997. Historically, the dam supported sawmills, a distillery, a woolen mill, a box factory, a blacksmith shop, and a tannery. The mostly collapsed Headwater Lumber Company/Clark sawmill situated on the west bank of the river immediately below the dam was the last operating industry at the site. The sawmill is a contributing resource to the State Register-listed Lower Cabot Historic District and its associated dam is also considered to contribute to the District. Although the mill is mostly collapsed and has lost structural integrity, the entire mill site with the dam is still recommended as contributing to the Lower Cabot Historic District. It is an important local site due to its early development, its connection to the Cabot Creamery, its brief association with the Bancroft Sporting Goods Company, and because it is the site of the last working water powered commercial sawmill in Vermont. This review recommends that the dam and sawmill are significant historic resources and eligible for inclusion on the National Register of Historic Places as part of the Lower Cabot Historic District. This review therefore recommends that the deconstruction of the dam and removal of the sawmill will result in an Adverse Effect on historic resources. The completion of a Division for Historic Preservation Historic Resources Documentation Package (HRDP) is recommended (Appendix I). This Historic Resources Review contains the majority of the components of the Documentation Package; however, additional photographs of the site are recommended once snow and ice has melted, perhaps during the drawdown / deconstruction. At that point, photographs can be keyed to plans/maps and the photograph index can be created; the complete package can then be submitted to the Division.

Review of nearby historic properties determined that the removal of the dam and sawmill will not directly impact any other resources within the Lower Cabot Historic District, but the District will be significantly indirectly impacted by the loss of these resources. The dam and sawmill site represent the earliest development in Lower Cabot and were important to the village throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries. This review therefore recommends that the proposed project will result in an Adverse Effect on the Lower Cabot Historic District. This review, along with the recommendation for completion of the HRDP, will assist in mitigating the adverse effect

Finally, removal of Clark's Sawmill Dam will likely result in changes to the Winooski River channel and may create some bank erosion (Figure 61). Based on the assessment provided, it does not appear that these changes will be significant enough to affect historic resources located along the banks of the river, either at the dam removal site, where the greatest changes will occur, or further upstream.

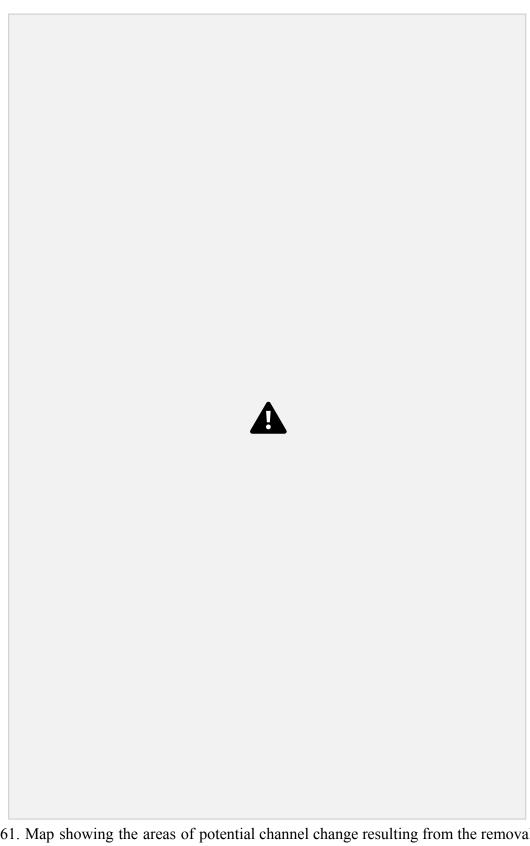


Figure 61. Map showing the areas of potential channel change resulting from the removal of Clark's Sawmill Dam (map provided by Department of Public Safety).

# 63 SUMMARY

The Vermont Department of Public Safety proposes the removal of Clark's Sawmill Dam (VT ID #39.04), located on the Winooski River in Lower Cabot, Washington County, Vermont, and the mostly collapsed Headwater Lumber Company/Clark sawmill situated on the west bank of the river immediately below the dam. The goal of the proposed project is to alleviate destructive and dangerous flooding events along the Winooski River upstream and downstream of the dam. This Historic Resources Review was conducted as part of the Section 106 permit requirements of the U.S. Army Corps of Engineers and to satisfy Vermont's 22 V.S.A. 14 regulatory process. A field inspection of the project area was conducted on January 20, 2017, by Kate Kenny and Catherine Quinn of the University of Vermont Consulting Archaeology Program, and detailed historic research of the property was undertaken as part of the review.

The dam is a combination stone and concrete masonry, overflow-type gravity dam that was originally constructed ca. 1797 to provide waterpower for a sawmill operation. It continued, almost continuously, to provide waterpower to various industry at the site for 200 years. The associated sawmill, now mostly collapsed, was constructed in 1925, replacing a ca. 1850 mill building that was destroyed by fire. The mill operated until about 1997. The dam and mill site are contributing resources to the State Register-listed Lower Cabot Historic District, which is recommended as eligible for inclusion on the National Register. As a result, this Historic Resources Review recommends a determination of Adverse Effect on historic resources by the Clark's Sawmill Dam and Sawmill Removal project. The completion of a Division for Historic Preservation Historic Resources Documentation Package (HRDP) is therefore recommended. This review contains the majority of the components of the Documentation Package; however, additional photographs of the site are recommended once snow and ice has melted, perhaps during the drawdown / deconstruction. At that point, photographs can be keyed to plans/maps and the photograph index can be created; the complete package can then be submitted to the Division.

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